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**Dr. W. Murray Weidman.**

*No.*

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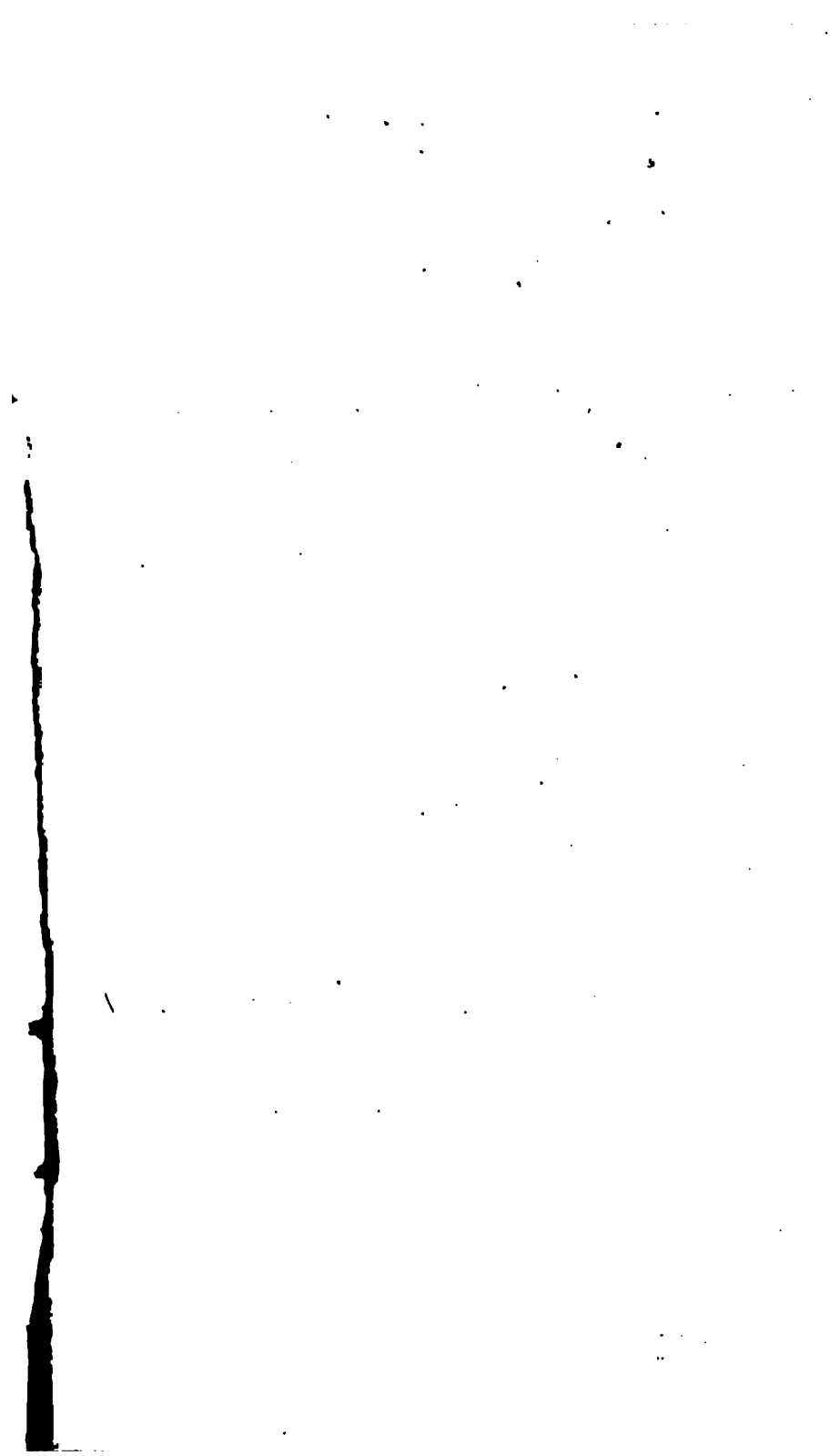
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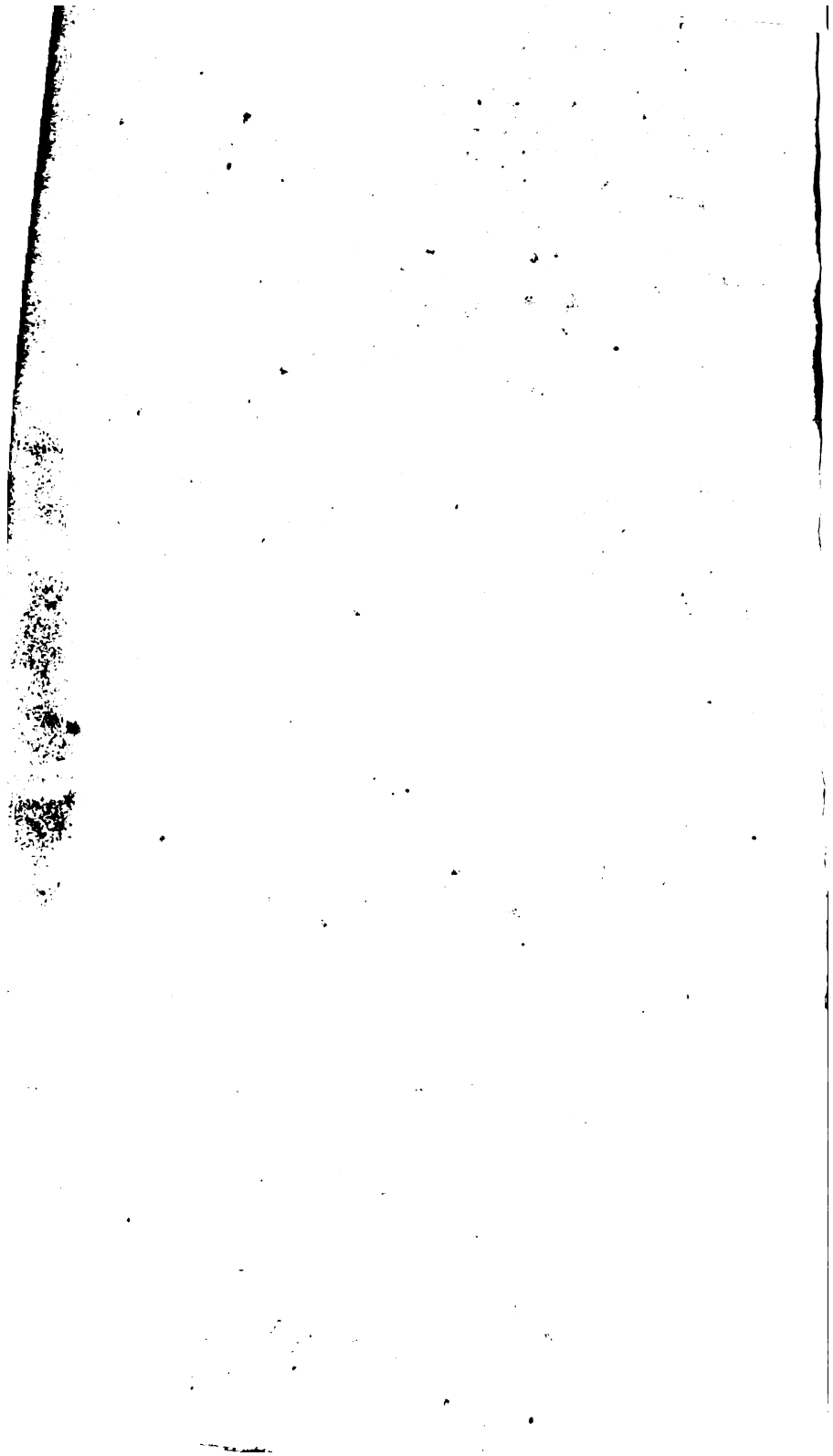
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THE  
MARYLAND  
MEDICAL RECORDER,

Devoted to Medical Science in general.

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CONDUCTED BY

HORATIO G. JAMESON, M. D.

Professor of Surgery in Washington Medical College, Baltimore.

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Quæramus optima, nec protinus se offerentibus gaudeamus; adhibeatur  
judicium inventis, dispositio probatis. *Quintilian.*

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VOL. 2.—NO. 1. APRIL, 1831.

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*Baltimore:*  
PRINTED BY WILLIAM WOODY.  
No. 6, S. Calvert street.  
1831.

**Dr. W. Murray Weidman.**

*No.* .....

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## ADVERTISEMENT.

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THE editor has embarked in the publication of this Journal without the expectation of pecuniary reward; nay, he has ventured to expend a very considerable amount of money, actuated by a love of science. Still he is perfectly willing to acknowledge, that he indulges the hope that it is only necessary to assure his brethren that the work can be sustained, with a reasonable share of ability, to secure a patronage sufficient to relieve him from loss.

This being his impression, he trusts he will be excused for exhibiting a brief exposition of his pretensions, and of his means for carrying on a medical periodical, which shall be creditable to our city. The editor brings to his aid, more than thirty years, sedulously devoted to the practice of medicine, in all its branches; the experience of ten years regular attendance on the Baltimore hospital; several years physician to the jail; and lastly, ten years consulting physician for the city—when we add to all this, the fact of his having for many years enjoyed the confidence of the public abroad, so far as to bring to him a constant succession of important surgical cases, from the surrounding states, and particularly throughout our own; we may without arrogance, lay claim to a pretty good share of experience. Besides, it is well known, that the editor has contributed in no small degree to the principal Journal of America.

Anxious that no means of obtaining information might be omitted, the editor encountered the privations, and dangers of the seas, in seeking information, and making acquaintances in Europe.

It will hardly be questioned, by any unprejudiced member of the profession, that Baltimore is competent to the establishment and maintenance of a medical Journal. When we look at the rapid strides that are making in mercantile, and other enterprises; how can it be doubted that we have the means in our power for holding a reasonable literary rank. But shall we fold our arms and say, it is too soon, while our enterprising neighbors are sending their portion, of the general stock of an

improving science, throughout our own country, and throughout Europe. Let us be independent and not tributary to any rival city.

This second volume is respectfully offered to the profession, and strong hopes are entertained that sufficient encouragement will be received to sustain the work.

No one will doubt, in the present day, that knowledge is only to be obtained by the combined effort of the profession; no one who has any respect for the profession, of which he is a member, can be indifferent to its prosperity. Those that are indifferent here, are like those members of society who, while they are wholly indifferent to the christian religion, forget that they are dependent on it for all the endearments of life. Can any physician be too poor to contribute five dollars, per annum, for an article no less necessary to him, than some important tool to the mechanic, or the newspaper to the merchant?

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### ***Exchange List.***

The following is a list of the Journals now received in exchange for the Maryland Medical Recorder.

The Medico-Chirurgical Review and Journal of Practical Medicine. London.

The American Journal of the Medical Sciences. Phila.

Magazin der ausländischen Literatur der gesammten Heilkunde und Arbeiten des aertzlichen vereins zu Hamburg.

Zeitschrift für die ophthalmologie. Dresden.

Bibliothek for Læger. Copenhagen.

Zeitung für des gesammte Medicinalwesen. This periodical was put into the editor's hands at Hamburg, by doctor Klose, the editor of it: place of publication not mentioned.

Litterarische Annalen der gesammten Heilkunde. Berlin.

The Transylvania Journal of Medicine and the associated Sciences. Lexington.

The North American Medical and Surgical Journal. Phila.

Edinburg Medical and Surgical Journal.

Several other periodicals are expected from Europe.

## INTRODUCTION.

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**IT** will be recollected by our patrons, that notice was given in the last number of this Journal, that the immediate editor intended visiting Europe; and that, in consequence of his intended absence, the Journal would not appear again till the first of January then ensuing.

But every one must be aware of the uncertainties of a sea voyage, and, we trust, no one will question our veracity when we assure them, that every exertion was made to fulfil our promise. This simple declaration would, we are persuaded, satisfy our readers, but on our own part we prefer laying before our friends, some of the circumstances which disappointed us in our expectations.

Doctor Jameson suffered in an unusual degree, from sea sickness—a confinement, during his out and return passage, wholly disabled him for eleven weeks: when we add to this the fact, that his travels in the north of Europe were for the short term of two months, it will be perceived, that nothing directly editorial could be effected during his absence. His attention while on the continent, was entirely confined to the collection of *raw material* for future use.

It seems proper that we should acquaint our patrons with the object of the visit of doctor Jameson to Europe—this we do the more willingly, on account of the trip having been altogether of a scientific character—His time was spent in the pursuit of medical knowledge, and may, therefore, be attended, eventually, with some advantages to our readers. An extensive and intimate acquaintance among medical men of high distinction, will, it is hoped, lead to the accumulation of much foreign medical inform-

ation, which will be favorable to our noble art, and creditable to our Journal.

Early in the last summer, (1830) doctor Jameson received the following circular, inviting him, as will be perceived on perusal, to attend a meeting of the German Naturalists and Physicians, at the city of Hamburg.

VIRO AMPLISSIMO CELEBERRIMO *To the justly Celebrated Man,*

\*\*\*\*\*

S. P. D.

*J. H. Bartels, J. U. Dr., Consul, et J. C. G. Fricke, M. Dr.*

Physicorum Germanorum conventum mense Septembri hujus MDCCCXXX anni, civitatis nostrae Senatu Amplissimo probante, Hamburgi habitum iri, omnes, quorum hoc scire interest, ex his litteris cognoscant volumus.

Quem conventum cum adoc-tissimo quoque maxime frequentari cupiamus ut Tu quoque, Vir Celeberrime, praesentia Tua frequentiam clarissimorum virorum ornes, pro munere honorificentissimis suffragiis nobis delato rogare ausi sumus.

Ceterum quos e paragrapho tertia et quarta legum societati physicorum praescriptam in illum conventum admittere licet ii in ephemeridibus nostris "*unpartheischen Correspondenten*" No. 39 ea, qua par est, reverentia, a nobis invitati sunt: quae invitatio quaesumus, ut Te interprete rite et solemniter communicetur cum omnibus et

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S. P. D.

*J. H. Bartels, J. U. Dr., Consul, and J. C. G. Fricke, M. Dr.*

We would wish by these letters to inform, all whom it may concern, that a Convention, of German physicians and naturalists, is about to be held in Hamburg, in the month of September, of the present year, 1830, under the auspices of the most noble senate of our city.

And whereas, we desire this Convention to be attended especially by every learned man, we have ventured by the powers delegated to us, by the most honourable suffrages, to ask that you also, most respected Sir, will adorn this assembly of celebrated men with your presence.

They whom it was lawful to admit to that Convention, by the third and fourth paragraphs of the laws prescribed for the society, were invited by us through our daily journal (*unpartheischen correspondenten*, No. 39\*) with that respect

\* The condition here alluded to as being contained in the aforesaid Journal, is that no one be invited who has not published his sentiments upon some branch of the natural sciences, in addition to his inaugural dissertation.

singulis, qui in urbe vel regione, quam Tu habitas, illius juris participes degunt.

Ut autem omnia, quae ad futurum conventum necessaria videntur, in tempore justae praeparari atque institui queant, necesse est, ut et virorum nomina, qui coetui, illi hoc anno interesse cupiunt, et earum rerum, de quibus disserere iis placuerit, notitia ante Augustum mensem nobis impertiatur. De utroque, quantum ad urbem regionemque Tuam pertinet, si per te certiores facti fuerimus, maximas Tibi gratias nos debere arbitramur.

Inde a die 12 Sept. usque ad diem 18 ejusdem mensis, quo conventus agitari coeperint, in amplissimo conclavi Domus publicae (des Stadthausen, Neuenwall No. 166) praesentes ipsi aderimus ad salutandos, advenas, eosque chartis aditabilibus instruendos, de iis denique, quae ad utilitatem societatis parata fuerint, docendos.

Haec invitatio; quam non sine summa observantia factam volumus, ut benevole accipiat optamus atque oramus.

Scr. Hamburgi, die 19 mo. mensis Aprilis MDCCCXXX.

which was due to them, which invitation we would desire, that after having properly and solemnly examined, you will communicate the same to all, and each who may enjoy the like privileges in the city or country in which you dwell.

But that all things which may appear necessary for the ensuing Convention may be instituted and prepared properly and in due time, it is necessary, that the names of those who are desirous of being present at the assembly of this year, and of those things which it may please them to discuss, that notice be given to us before the month of August.

If we are fully informed, of whatever may be deemed important and peculiar, to your own city, and country, we will consider ourselves under many obligations to you.

In pursuance of the purpose aforesaid, the Convention will hold their meetings from the 12th to the 18th of September, in the large chamber of the State House (des Stadthausen Neuenwall, No. 166,) where we will be present, to receive strangers, and furnish them with proper documents concerning those matters which have been prepared for the use of the society.

This invitation which we have not made without the greatest circumspection, we hope and pray may be received kindly.

Written at Hamburg, 19th April, 1830.

Upon arriving at Hamburg, the present writer learnt that a literary meeting had taken place for nine successive years, in some one of the Towns in Germany, composed of Naturalists and Physicians, and countenanced by the principal authorities in the several Towns in which these meetings had been held. The committee of arrangements, or managers, for the present meeting, are J. H. Bartels, J. U. Dr.; also, first alderman, president of the senate of Hamburg for life, &c. and doctor J. C. G. Fricke, surgeon of the Hamburg Hospital, and a highly distinguished member of the profession.

*Advertisement for the use of the members of the Society of the German Naturalists and Physicians, at their meeting in Hamburg, in September, 1830.*

1. The managers will meet from the 12th to 17th September, in the morning from 9 to 11 o'clock, and on the 17th, in the afternoon from 2 to 3 o'clock; on the 18th, in the morning from 8 till 10, and in the afternoon from 1 to 2; on the 19th and the 20th, from 1 to 2, in the large chamber of the Stadhaus, (Neuenwall, No. 166) for the purpose of making the members of the Society acquainted with the proposed regulations.

2. Each member will receive from the managers, an admission card for the general meetings, which will designate to him the seat he is to occupy. This card will serve at the same time as an admission to the extra general meetings.

3. The praiseworthy and obliging Police have agreed with the managers, that in all cases, without exception, no other recommendation than theirs will be required from foreigners.

4. Owing to the want of a large institution and museum of the Sciences, notwithstanding the many scattered things of merit and importance to be found in Hamburg, it has appeared proper to the managers to invite a number of our Naturalists and Physicians, to unite together and form a committee, the members of which will be pledged to give to strangers, a special description of the relative condition of the different branches of Philosophy and Medicine. Moreover, some of the Physicians of our neighbouring city Altona, have kindly united themselves with this committee.

The members of the committee with appointments for the above named individual branches, are:

I. For Botany, Drs. Buek and Siemers.

II. For Physic and Chemistry, Dr. Gerson, and Mr. Noodt, Apothecary.

III. For Zoölogy and Zöotomy, Drs. Günther, Steinheim of Altona, and Von Winthow.

IV. For Anatomy and Physiology, Drs. Fallati and Schön.

V. For Practical Medicine, Drs. Behre, of Altona, Hackman, Mönteberg, Nagel, of Altona, Platte, Ph. Schmidt, Schröder, Schrödter, and Zimmerman.

His Excellency the Minister Von Struve, has, with his accustomed willingness, kindly promised to furnish information on the subject of Mineralogy.

Professor Lehman has promised in the most friendly manner, to give every information in relation to the Science of Botany.

5. For the different sections, the managers propose the following hours, and designate, at the same time, in what part of the city their meetings are to be held.

For Mineralogy, in the morning from 8 to 10 o'clock, at the dwelling of his Excellency the Minister *Von Struve*, (Kaffemachereihe, No. 169.)

For Botany, in the morning from 10 to 12 o'clock, at the dwelling of Professor *Lehman*, (gr. Drehbahn, No. 393.)

For Zoölogy, Zöotomy, Anatomy and Physiology, in the morning from 8 to 10 o'clock, in the Anatomical Hall of the Kurhause Zuchthaustrasse.

For Physic and Chemistry, in the morning from 10 to 12 o'clock, in the office of doctor Schmeisser, (Königstrasse, No. 238.)

For Astronomy at hours to be agreed on, in the Observatory.

For Practical Medicine, in the morning from 8 to 10 o'clock, in the Börsenhalle.

6. The first general meeting will take place on the 18th September, at 2 o'clock, in the large chamber of the Börsenhalle, or Reading Rooms, (Böhlenstrasse, No. 7) and terminate towards four. The proceedings will commence with the announcement of the subjects to be treated of; next the reports of the various sections will be presented, and then follows the discussion of the subjects themselves, and the business will conclude by receiving propositions, annunciations, and subjects generally, that are likely to interest the Society.

7. The general dinners will commence on the 16th September, at 4 o'clock, in the Apollonsaale, (grosse Drehbahn, No. 325.)

The managers would remark, that they have expressed a wish generally to our inhabitants, that during the time of the meeting, no private business be transacted. They express at the same time, their most earnest desire to the united members of the Society, not to withhold their presence from the general dinners.

There will be daily a number of cards distributed, in order to procure to our well-wishers, and the friends of Philosophy and



Medicine, the pleasure of taking part in so distinguished an assembly.

No ladies, except the wives and daughters of strangers, will appear at the table.

There will be no toasts produced at the table, other than those which the managers present.

The members of the committee, and the managers, will take their appointed places at the table, (which will be particularly marked,) for the purpose of conducting the entertainment.

8. There will likewise be in the evening, several supper rooms in the Apollosaal held in readiness for interchange of civilities.

9. The public institutions will be opened to strangers daily, from the 18th to the 26th of September, at the following hours:

I. The Botanical Garden will be opened the whole day, by the consent of Professor Lehman.

II. Medical visits will be paid to the general Hospital, from 10 to 12 o'clock. The internal arrangements of the House itself will be shown in the mornings from 9 to 10, and from 12 to 2 o'clock in the afternoon.

III. In the Freemasons Hospital, one of its Physicians, Dr. Bülan, will have the goodness to be there from 1 to 2 o'clock, to conduct strangers through it.

IV. The Library of the Medical Society, will be opened every day to strangers, from 10 to 2 o'clock. A member of the Society will be there, to give the required information.

V. The Observatory will be opened from 1 to 2 o'clock, every day. Mr. Repsold has promised to meet strangers there one evening.

VI. The City Library will be open from 12 to 2 o'clock; the Commercial Library also from 12 to 2.

VII. The Deaf and Dumb Institute, from 1 to 3 o'clock.

VIII. The Apparatus of the Life Saving Institution, will be shown in the Kurhause (Zuchthausstrasse) in the afternoon, from 1 to 4 o'clock.

The owners of private collections, have promised to show them daily at the following hours:—

I. Mr. Rüdiger will open his Museum, (in the Deichthorwall) from the 12th to the 17th September, every day in the forenoon from 10 to 1 o'clock.

II. The Mineralogical Collection of his Excellency the Minister *Von Struve*, from 12 to 1.

III. The Mineralogical Collection of Pastor Müller, (Catharinen-Kirchhof, No. 38,) from 11 to 12.

IV. The Ornithological Collection of Johannes Amsick (Holzdamm, No. 97,) the whole day.

V. The Ornithological Collection of Professor *Von Essen*, (in Bambeck) at hours to be agreed upon.

VI. The Ornithological Collection of Professor *Spangenberg*, (Holzdamm, No. 97,) from 9 to 12.

VII. The Entomological Collection of Mr. *Von Winthem*, (Deichstrasse, No. 35,) from 1 to 2.

VIII. The Pathologico-Anatomical Collection of a Medico-Chirurgical Society by Dr. Fallati, (Speersort, No. 52,) from 12 to 2 o'clock.

Mr. Sommer, of Altona, has also promised to show his Entomological Collection to strangers, at hours to be agreed upon.

Burgomaster Sillem, (Cremon, No. 67,) will show to any one who desires it, his Collection of Pictures; so also will Prof. Spangenberg, (Holzdamm, No. 97,) and Mr. Bendixen, (Kauf, No. 275.)

Mr. Von Hostrup has offered to each member, a ticket of admission during the day, to the Börsenhalle, or Reading Rooms. The Directors of the Harmonic Society, have likewise offered admission cards to their Library, (grosse Bleichen, No. 333.)

The above is a free translation from the German, of a pamphlet which was distributed among the members of the literary meeting at Hamburg, in September 1830. We have deemed it proper to insert it entire, with a view of showing, as a matter of curiosity, how those meetings are conducted; and, also with a view of calling the attention of the faculty to the circumstances connected with this affair, so well calculated to do honor to the profession of medicine.

Here we see hundreds of literary men; most of them belonging to the medical profession, assembled from all parts of the world—they are all recognized by the *police* as friends, and men entitled to distinction. They are offered the freedom of the city during convention, and the institutions of science vie with each other in doing honor to the distinguished strangers. Hospitals, museums, collections, libraries, reading rooms, &c. &c. are thrown open free of expense. Under circumstances like these, the circumstance of being in the midst of this thoroughfare of science is highly honorable.—But this is by no means all—the interchange of sentiment, and the production of improvements or discoveries are calculated in a high degree, to diffuse knowledge—while the friendly civilities exchanged under circumstances so well suited to the purpose of forming acquaintances, afford the most rational pleasure, there is much opportunity for individual improvement.

We are not prepared, at present, to give even a sketch of the peculiar proceedings of the meeting for the last year; but we

have been promised reports hereafter, of the various events which transpired: so soon as opportunity is afforded, we shall lay before our readers the particulars, some of which we deem interesting.

It is obvious that some of the foregoing regulations would neither be admissible nor necessary in this country; we think, however, that our readers will agree with us in believing, that meetings, in some degree similar, would be beneficial to the profession, and to society at large, in this country.

It seems proper that we should add a few remarks upon the subject of arrangements, in addition to the exposition presented in the *pamphlet*.

The police with a view of accommodating strangers had made public request, that persons who were disposed to rent rooms, &c. should report the same to the city authorities, in doing which, the street and number was made known, the extent, &c. of rooms, furniture, and bedding, and also, the price per day, or week.—In this way, strangers were saved from trouble, and from risk of imposition.

The price of the public dinners was fixed at a very low rate, (two marks current, a little more than half a spanish dollar,) wines were furnished at a very low price. And a trip having been projected for visiting Bush's gardens, eight miles from the city, carriages were engaged at two marks, so that strangers instead of paying extravagantly for whatever they needed, obtained it below its usual value.

It is said in the regulations that no ladies, except the wives and daughters of stranger members, would appear at the public table. There was a considerable number of strange ladies every day at dinner. And in the evening much of the fashion, and beauty of the city, were present in the rooms of the Apollosaale. Madam Fricke, sat in waiting each evening, for the purpose of initiating, and introducing, the ladies; and presiding over the proceedings generally of the evening; all which she did with much propriety, and a genuine lady-like dignity. We must, however, complain of their rude waltzing, instead of graceful dancing.

We have been led to believe that many advantages will attend an institution of this kind. In the present day the spirit of the times is much in favor of change, innovation, improvement. It is certain, that, where there is no change there can be no improvement; but it is equally certain, that where there is a prevailing disposition for change there will be much useless matter presented to the world—but precious stones are picked from rubbish.

It is obvious that much good may result from frequent meetings of literary men, particularly in the natural sciences. In such assemblies there will be many men emulous of fame, and anx-

ious to improve science. By bringing such men together, the best opportunity is afforded for securing merit to whom it is due. Each one in his proper person, (or by proxy) who may believe that he has discovered something important or useful, may here have it acknowledged by a tribunal that can scarcely be suspected of partiality—plagiarisms will be exposed—improvements acknowledged—simultaneous discoveries divided between the claimants. In short, this institution is well suited to the peculiar and elevated state of medical science. It will do much good by giving merit to whom merit is due. But this is not all, nothing in our opinion is so well calculated to excite emulation, and lead to literary industry.

Literary men must depend upon public opinion for the success of their publications, and no man of an ambitious and literary turn of mind can be indifferent to the honor and advantages attending membership in such an institution. Admission to these assemblies, places them in the first rank of their profession; all therefore, who aspire after literary distinction, will become members.

These meetings commenced in Germany nine years ago, and are held annually, and have probably, given rise to many publications. The press is constantly sending forth publications upon medicine, and the collateral branches of science. Under such circumstances, it is to be presumed, that there will be much unimportant matter issued, but still there remains enough to keep up a constant progression of improvement highly honorable—so much so that, Germany is in a fair way to take the ascendancy in the natural sciences.

Among the advantages attending these assemblies we may also notice the tendency which they have to beget friendship, growing out of personal acquaintance, which lead to correspondence. Indeed, the present writer never witnessed any thing more strikingly agreeable than the politeness, and peculiar tact, which most of those assembled at Hamburg possessed, for rendering themselves agreeable. The meeting consisted of upwards of three hundred assembled from most of the countries of Europe, but principally Germans. When we take into consideration the turbulence of the people in many places, there is room for believing, that, the number would have been far greater had there been a state of tranquillity. Those present were generally men of the highest attainments in the rules of politeness—a more agreeable and polite set of men could not be collected from any part of christendom. In proof of the unsettled state of the public mind having much lessened the meeting, we may mention the fact, that there was not one gentleman from France, while the year before, according to the account which we have seen of those present at Heidelberg, there were eight gentlemen from France.

The reception of the present writer was highly gratifying. It was obvious that Americans are much respected by the better classes of people in Germany, and indeed, the remark applies to all the north of Europe! Being the first American who attended the convention it was looked on with manifest marks of approbation. The time devoted to this purpose, it is hoped, was by no means mis-spent, since many intimate acquaintances were formed with men of the first distinction, throughout most of Europe, so that in addition to the pleasure and common advantage, growing out of a short visit to Europe, the foundation has been laid for correspondence in Germany, England, Russia, Sweden, Denmark, and Holland, and this founded on a favorable personal acquaintance.

We shall have the opportunity of presenting to our readers as we progress with our journal, some of the improvements and peculiarities attending the application of our knowledge to practice. We hope, from year to year, to be enabled to collect useful information, for our pages, for dissemination throughout our country.

There is one other circumstance connected with this institution which seems entitled to notice. It is well known that the German physicians are a body of learned men, and it has, therefore, been presumed in this country, that they do all their scientific business in the Latin language—this is all a mistake. Nothing is more true than that they are a learned body of men; indeed a classical education is a necessary pre-requisite to the study of medicine; and, one cannot but be surprised at the fluency with which many of these men speak three or four languages. It is quite common for them to speak German, French, and English, quite well, and some of them add to these the Danish and Swedish languages, but they are not more remarkable for their knowledge of languages, than for their exemption from any thing like pedantry or show of learning. In two weeks intercourse with the members of this convention, and indeed, during a stay of two months, constantly more or less in the society of learned men, not more than two or three brief latin sentences were heard. While they look upon the classics as ornamental, and indeed insist upon it as a pre-requisite to the study of medicine, they have too much good sense not to know, that every country will best promote the advancement of the sciences by cultivating them in their own language—and hence it is, no doubt, that all the proceedings of the German naturalists and physicians are conducted wholly in their mother tongue.

The present writer did not meet a single individual who did not read English; nor did he meet any who were unacquainted with the state of medical science in this country. They give us

credit for improvement without prejudice, and as a nation may be said to read eagerly every thing published in this country. And, indeed, there is no small degree of similarity in the practice of medicine in Germany and this country; but we must not overlook the fact of their using all their active remedies in much smaller doses than we do. Those with whom the present writer conversed on this subject ascribed the difference to difference of climate.

There is still another fact from which the present writer derived no small degree of pleasure, it is this—*mustaches*, and *whiskers*, are very commonly to be seen in the streets, and no small degree of pains is taken to vary these tufts of hair, to please the taste of the wearer—some have a tuft on the upper lip, some two; some have them on both lips, one, two, or three; some pretty large, others but small, and yet, notwithstanding the fact that a good many young men attended the convention, not one person is recollected who had disguised his face in that way.

The foregoing remarks will enable the reader to form a tolerable notion of the nature of the German literary conventions—when we receive some communications, promised by some of our German friends, we shall be enabled to furnish our readers with some of the more important transactions of the meeting for 1830.

Doctor Jameson went out prepared to exhibit some of his improvements in surgery, as well in regard to operations, as instruments. He also carried with him doctor Barton's forceps, and the ligature of doctor Physick; but, as had been in good degree anticipated, he found the profession familiarly acquainted with every thing of the kind; he was therefore induced to decline exhibitions so little calculated to interest—owing to their being already well known, no inducement was left for presenting them to the convention—they were, however, left at the hospital where they were seen, by a considerable number of the more distinguished members of the meeting.

Having expressed to his excellent friend doctor Fricke, a desire to show his operation of lithotomy, for the female, the doctor expressed his regret at not being able to furnish a living subject. He took occasion to say that cases of *stone* are so rare in the neighborhood of Hamburg, that the whole range of surgery, in that great city, does not afford more than three or four cases per annum. But he promptly offered to furnish a dead subject, so soon as it might be in his power. Agreeably to this promise, doctor Jameson was soon notified that arrangements were made for his accommodation. The operation was performed in the presence of several distinguished surgeons, among these were doctor Jameson's particular friends, Fricke, Gerson, Ekström and Jacobsen.

The day following the doctor received a note from his friend doctor Trier, one of the house physicians, from which the following is an extract. "Excuse, my dear professor, that I did not, as I promised yesterday to you, send to your lodgings, the instruments with which you had the kindness to show your excellent manner of making lithotomy, in women, for which we, all that saw it, are very much obliged to you."

The hospital at Hamburg is a grand school of surgery, but the present writer must reserve for other occasions, some of the peculiarities and improvements which were seen in that admirable institution. We have merely incidentally mentioned the exhibition of instruments, and the operation on the dead subject, by way of explaining why doctor Jameson, who is known abroad principally as a surgeon, should take a medicinal subject for discussion, before the convention. It was found that yellow fever would afford a subject of high interest to the meeting, and doctor Jameson having been health physician for the city of Baltimore, for many years, was prepared to communicate much information of a practical nature, in relation to the question of contagion—But not being willing altogether to relinquish his surgical pretensions, he availed himself of the politeness of doctor Fricke, to offer a few specimens of American surgery, as above stated, at the hospital.

The present writer finding in his intercourse with the profession, that the yellow fever was a subject which excited much interest, that they were especially anxious to ascertain his opinion on the question of contagion; and, moreover, that American commerce was much affected by the practice in all the ports in the north of Europe, of enforcing quarantine regulations, of more or less severity, felt it a duty to communicate his experience, as a public officer for many years, in the city of Baltimore.

Having been led by the foregoing circumstances, to prefer this subject, it was mentioned by doctor Jameson to his very dear friend doctor Julius, who at once expressed his wish that this subject should be brought up before the convention, and politely offered to translate it into German, which he did with much promptness and great accuracy. This paper was read, and kindly received, and obtained for its author the following vote of thanks—we offer it to our readers because we believe that the profession throughout our country, must feel an interest in the question of contagion, since the notice of the contagious nature of yellow fever, is so prevalent in Europe; and because mankind are deeply interested in this subject, as well in their commercial transactions, as in their duties of humanity towards each other, both in their personal and national capacities. If such be the state of things, a document consisting of facts of a

public kind, favorably received, by a very large assembly of influential and distinguished men, will, it is hoped, meet a favorable reception at home.

SIR—The Council of the meeting of German Naturalists and Physicians, assembled at Hamburg in the year 1830, feel themselves moved, on the representation of the medical section of this meeting, that much pleasure and information has been given to them by doctor Horatio G. Jameson's most excellent and luminous Lecture on the non-contagiousness of yellow fever, to carry, by this letter, to the said doctor Horatio G. Jameson, from Baltimore, the thanks of the members of the whole Society of German Naturalists and Physicians, for his coming here, and crossing twice the ocean, for the purposes of humanity, influenced by scientific enthusiasm highly honorable to their author, and to the most noble ends of our noble and elevating art.

J. H. BARTELS, *Dr. Consul Hamb.*

*President of the Convention, &c. &c.*

J. C. G. FRICKE, *Dr. Secretair.*

W. SACHSE, *President.*

*Hamburg, 22d September, 1830.*

Our readers are referred to the body of this journal, for the essay to which the above certificate has reference.

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Our patrons will perceive that our list of contributors is still but small—this, however, is what may be looked for in the commencement of periodicals, and, more especially *medical*. There is a remarkable backwardness on the part of most physicians in appearing before the public; but there is a degree of fashion in this matter, as in most others in human affairs; and we, therefore, have a right to expect that, it is only necessary firmly to establish a nucleus, or in other words, a few examples, in order to bring forth a portion of latent talent. If we can obtain the aid of a few of the more adventurous spirits, we shall hope to see their example bring to the light of day useful knowledge, which would otherwise be lost forever—the facilities which are afforded by periodicals, for recording the observations of practitioners are well calculated to bring them forth. Here they have the advantage of offering every fact, should it not fill half a page. Indeed, no one can be insensible of the importance which attaches to a clear recollection of some of the more interesting practice of every physician; and it is equally true that every practitioner



will forget practical occurrences, which it would be desirable, sometimes highly important, to recall. If this be the case, how easily may such knowledge be perpetuated, by devoting a few hours in the year to drawing up cases for insertion in a periodical; and if individually important, how much more so must be the congregation of such information, from a very considerable number of individuals?

Pity it is that the impression is common, that men can only appear respectable, or do the medical public a service by writing elaborate essays: than this nothing is more erroneous. The most important information is derived from plain matters of fact—a brief account of an epidemic, or of some interesting case is very often vastly important, while many works of speculation sink speedily into oblivion, because, in truth, too often they are worthless.

We hope to see this impression removed, and that gentlemen in our ranks will feel, that they are in some degree responsible to that public by whom they are sustained, to do something in return by way of imparting knowledge.

Those correspondents who promised at different periods to contribute material for this Journal, are now respectfully reminded of such promise. We would have them bear in mind that we promised upon their promises—their non-compliance leaves us losers; because having announced that papers were in preparation, and these not appearing, leaves us under the imputation of being false promisers. After all, we have the fullest assurance, that we are prepared to fill our pages with useful materials, both domestic and foreign.

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ORIGINAL ESSAYS.

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*Observations upon the non-contagious nature of yellow fever; by HORATIO G. JAMESON, M. D. Professor of Surgery, and surgical anatomy, in Washington Medical College Baltimore: Consulting Physician for the City of Baltimore, &c. Read before the Medical Section of the literary assembly, held in the City of Hamburg, in the year 1830.*

**I**N turning my thoughts to the long agitated question, whether yellow fever be contagious, the first thought which presents itself to my mind is the fact, that, the medical profession of all ages, have been more zealous in their efforts for the prevention of disease than for its cure. This noble trait of character alike beneficial to mankind, and honorable and disinterested on the part of the profession of medicine, is perhaps, no where more important than in our pursuit after knowledge, and in its application to the very important subject before us.

It will be acknowledged in the present instances, I presume, that prevention is far better than cure—it will follow that, in order to effect this desirable object, we must find out the *cause* of the disease. While we are ignorant of the remote cause of yellow fever, we can only blindly oppose obstacles to its extension or propagation; but, if we can, by actual experience supported by philosophic induction, point out the cause, we may decide how far the *cause*, and consequently the *fever*, can be prevented; nor is it really essential, that we unfold or explain the actual nature of the cause; this, indeed, would be requiring what we do not obtain in a majority of our scientific inquiries.

If we can locate certain forms of disease to certain situations,

and find that a certain combination of circumstances is necessary for the existence of such disease, we may, agreeably to the most correct rules of philosophizing, conclude that the cause, though not actually visible, is nevertheless clearly manifested by its effects. Believing as I do, that this is the true foundation on which to rest the present inquiry, I shall now proceed to offer briefly my own observations on this highly interesting subject.

In rising before this learned assembly, I need offer no apology for confining my remarks to my own observations; but I have two reasons for calling your attention at this moment, to this point of our inquiry. To pass it over without this notice, might subject me to the imputation of egotism, in speaking of what I have seen, to the neglect of others. To speak to this learned body of things already published, would be a work of supererogation; nor, does time or opportunity admit of any thing more than a brief summary of what I have to offer from my own limited stock of knowledge. Suffice it to say here, that the several authorities who have written on the subject of yellow fever, in Europe, and America, with a view of proving its non-contagioness have presented what almost every medical man in the United States considers a truism.

In the year 1814, I became one of the physicians of the Baltimore Hospital, from that time to the present, I have continued my attendance more or less; and, most of the time, I have been engaged both as surgeon, and one of the physicians. This hospital being the receptacle of fever cases, from our quarantine ground, for sailors generally; and for paupers, affected with malignant disease, has afforded me the opportunity of seeing more or less cases of malignant or yellow fever every year. Within this period yellow fever has existed four times as an epidemic in the city of Baltimore; in other years the disease was only seen in its sporadic character—some years we see but one, two, or three, such cases in our hospital.

When we add, to the opportunity afforded me, in the hospital, the fact of my having been consulting physician for a considerable part of the time above specified, it will be admitted that my opportunity for observation has been ample. It may be proper, however, briefly to notice the duties of the consulting physician, so far as those duties are connected with the subject before us. In all cases where the attention of the board of health is called by inn-keepers to sick strangers, if there be any suspicion in the mind of the board of health, the consulting physician is called to decide; on his decision depends the disposal of the sick. If he pronounce it malignant fever, the patient must be sent, by the board of health, to the hospital—if he declare it otherwise, the patient cannot be admitted at the expense of the city. And since

this case involves a good deal of responsibility, the board of health but seldom attempt to decide; or remove such patients till decision has been had from the consulting physician. It is also considered a part of the duty of the consulting physician to visit all suspicious cases of fever, sent to the hospital by the health officer or *boarding* physician, who is authorized and directed, to send all malignant or suspicious cases to that institution. It is also required by our city ordinances that inn-keepers, and others, having sick strangers, laboring under malignant or suspicious disease report such cases, under a penalty, to the board of health; and it is solicited by resolution of our city police, that every physician report suspicious cases forthwith, to the health department. It will be seen, then, at once, that the consulting physician must constantly have cognizance of every thing directly connected with yellow fever, whether it originate within the city, or come from abroad by means of our shipping.

The first epidemic, to which I have already alluded, occurred in the year 1819. That year many cases of yellow fever were sent to the hospital, where I then attended as one of the regular physicians; and at the same time had especial charge of the yellow fever department. The number of patients is not recollected, but they amounted to some hundreds, of all sexes, ages, and conditions. I visited the fever wards daily, for several weeks, during which time two other physicians visited about twice a week; there were several students, several nurses, besides many physicians, and friends of the sick, frequently calling; no one was known to suffer from such intercourse—on the contrary, all connected with the establishment continued to enjoy perfect health. Nurses, and washer-women, who were daily exposed in every possible way, continued to attend to their vocations, during the season with impunity; nor were any measures taken to guard against contagion, other than the observance of the strictest cleanness; but as regards the people last named, they were daily and constantly coming into contact with all the offensive matters arising from the sick, the dying, and the dead.

The succeeding year there were again strong indications of another epidemic. The inhabitants of the sickly neighborhood were advised to remove; those unable to bear the expense were removed to an encampment near town, and maintained there, during the sickly season, by the public. In this way, the ravages of the disease were prevented, and but a moderate amount of deaths occurred. There was a constant intercourse kept up between the people of the encampment and their friends, from other parts of the town; by charitable persons, by physicians, and by idlers; yet no one ever heard it intimated, that the disease had been spread, by

the crowd of poor people, who were rapidly collected from the sickly part of the city. This seems a suitable place to notice the fact, that the disease under notice has always been confined to certain bounds or streets, but more of this as we proceed.

We had another visitation of malignant fever in 1821. It was wholly confined to a certain part of the city; and embraced but a part of what are called the *made grounds*; that is, various substances as wood, shavings, oyster shells, and various kinds of vegetable and animal matter were collected, and deposited upon an alluvial soil, in former years, for the purpose of filling up low marshy grounds. Having been satisfied, from the last year's trial, that the removal of the people from the contaminated part of the city was the surest way to cut off the disease, we should again have had recourse to sending the poor to an encampment, upon open dry ground, but we had learnt that this measure led to much immorality and vice; we were, therefore, led to adopt another expedient. The police of Baltimore, moved by feelings of humanity, had wisely provided by ordinance, that the Board of Health, in the event of an epidemic occurring, might remove the sick from sickly parts of the town, to those that were healthy, and there provide houses and sustenance for them during the sickly season. This measure, founded in wisdom, and dictated by humanity, was found not only to meet the expectations of its humane projectors, in saving very many from the yellow fever, by removing them beyond the influence of its remote cause, but it brought with it irresistible proofs of the endemic and non-contagious nature of the disease. Suffice it to say here, however, that in the epidemic of the summer and autumn of 1821, a very considerable number of rooms and small houses were rented by the Board of Health for the accommodation of the poor. Among the several hundreds thus removed, there were but a few cases of fever occurring after removal; and never was a case traced to any of the houses on the high grounds—they held free and constant intercourse with all other parts of the town, and yet I can most positively aver, that not one instance occurred of any one being affected with yellow fever, who had not been subjected to the miasm or malaria of the sickly neighbourhood. Under this state of things, it is almost needless to state, that those who were able removed to the country, or to other parts of the town. And hence it was, no doubt, that hundreds of deaths were prevented.

In the summer of 1822 this disease became again epidemic, or rather endemic, since it was confined to a very small section of the town, bordering on a marshy shore of unimproved lots. This disease, though limited to very small bounds, was extremely malignant; more than half who fell under its influence

died. And it is particularly worthy of notice, that while the fever of this year was confined to the western margin of certain alluvial grounds, that of 1821 was as clearly located on the eastern margin, though somewhat extended and scattered.

I shall now offer a brief summary of my experience, and then draw a few conclusions, which I think are fairly deducible from the facts already stated. Before proceeding further, however, it seems proper to state, that notwithstanding the fact that Baltimore affords sufficient opportunity for becoming acquainted with yellow fever, yet I should be sorry to make so erroneous an impression upon the minds of my hearers, as that it is a sickly town: so far, indeed, is this from being the fact, that I feel authorized to say that, judging by the bills of mortality, Baltimore loses fewer citizens by death in the ratio of population, than any large city in America, excepting Boston.\* And as an additional support to this declaration, I may mention the fact, that *we had no malignant epidemic for fifteen years* preceding that of 1819, already noticed.

1st. In 1819, several hundred persons were sent to the hospital, laboring under yellow fever; some were moribund when sent in, many died. This state of things continued for nearly two months, and no one was ever known to be in any degree affected by the sick, although the disease was every day portrayed in all its horrors, as I well know—hemorrhagy from every *orifice*; from the smallest wounds; black vomit; mahogany, and yellow, and livid hues of the skin; hiccup; cold skin; and passing many hours entirely pulseless, were some of its frightful symptoms; but the silly, vacant smile, which is often seen amid the grim and horrid ghastliness of face, with an eye glassy and dumb, while the victim will tell you that he is better, characterize this appalling disease beyond the possibility of a mistake.

2. Of the several hundreds who were sent to an encampment, in 1820, it may be confidently averred, that the disease was not conveyed by them to any individual who resided out of the affected neighborhood.

3d. The distribution of the sick among the inhabitants of the healthy parts of the town, and also those who had inhabited the

\* This assertion was made from memory, at the time this paper was written in Germany, and the opinion of the writer was formed upon the weekly reports in the newspapers of the several cities named; and the gentlemen comprising the present Board of Health agreed in the opinion upon hearing this paper read. But some late reports seem to render this assertion doubtful. Nothing, however, is more true than that Baltimore is a healthy city. Ninety-nine hundredths of the town is upon a clean gravelly and sandy soil, and remote from any large marshes, and well supplied with excellent water.

contaminated part of the town in 1821, while it speedily arrested the disease, tended to prove irresistibly, that the disease was not contagious, since no one was known to suffer, although there was the most free and promiscuous intercourse between those who had been removed, and the people of other parts of the city.

4th. We meet with one or more sporadic cases every year in our hospital—these come sometimes from the quarantine ground, sometimes from the alluvial grounds already alluded to; and since these cases often come from quarantine in their incipient state, they are sometimes put into the wards with other fever patients, yet in all my intercourse with such patients, I never knew a case of fever to arise from any one of them.

The facts being established that this fever never occurs as an epidemic, except upon the alluvial soil, near the water, and that patients carried from such situations, whether they recover or die, do not communicate the disease to others, (to say nothing of the fact of hundreds of the poor, who carry with them their clothes, and household goods, bedding, &c. often remaining from those who have died of the disease,) leads to the following conclusions.

1st. The disease being strictly located within well defined limits, and not communicable out of those limits, proves incontrovertibly, that the remote cause of yellow fever is the offspring of something existing in alluvial situation only.

2d. As the remote cause exists in alluvial situations only, it must be the offspring of that peculiar combination of circumstances or things, which are seen existing in such situations. These are most obviously the alluvial material, composed of vegetable, earthy, saline and animal substances; to which is added water. These substances constitute all the visible material necessary for the production of malaria; but to render them operative, it is necessary that they be exposed to a pretty high temperature. We seldom, if ever, see the epidemic in question, where the atmosphere is below 80° of Fahrenheit.

Now it seems to follow most conclusively, from the foregoing premises, aided by our chemical knowledge, that the miasm or malaria which is known to be the remote cause of fever, is the product of vegetable decomposition. From a knowledge of this fact we derive the corollary, that vegetable matter in similar circumstances, though in small quantities, may generate a poison more or less limited in extent and force, in proportion to its bulk or quantity, consequently, while an alluvial soil may give rise to a febrile epidemic, small parcels of vegetable matter, placed under similar circumstances, will merely injure those who come to the spot of exhalation to inhale the poison.

This being a fact, not only supported by analogy, but clearly

within the sphere of observation, affords us an important lesson, *i. e.* knowing yellow fever to be the product of a peculiar modification of vegetable decomposition, we of course become solicitous to remove, or prevent, the state of things which may lead to the accumulation of miasmata. And hence it is, that at Baltimore we are only solicitous to ascertain, of ships arriving from foreign ports or coastwise, (nor do we make any distinction,) whether they have any damaged articles on board, or any foulness of the ship. Excepting small pox, we have no fears about persons who may have been sick on the passage, or sick at the time of examination at the quarantine ground.

There is, however, a curious circumstance connected with this subject, which candor obliges me to notice. It is this. We not unfrequently have a combination of things present which are known to produce the most deadly malaria, and yet no epidemic follows. This seeming mystery cannot, however, upturn the vast number of resistless facts in support of the opinion, that febrile poison is the product of vegetable decomposition. Although our chemical knowledge does not enable us to collect, and test, the properties of miasm, still its laws unfold to us analogies which tend strongly to explain the difficulty—thus, it is well known that, in the various combinations of elementary bodies, compounds are formed wholly dissimilar from the very same elements, owing to their combining in different quantities; and this, too, in very many instances, in certain definite doses. Thus a certain proportion of sulphur, combining with a certain quantity of oxygen, produces sulphurous acid; certain other proportions produce the sulphuric. I offer this as one of the most simple instances of definite proportions, of simple bodies, producing definite compounds. There are many others much more curious, as may be seen in the various combinations of chlorine and oxygen. If, then, we see these fixed or determinate laws, governing the combination of the more simple bodies, we may rationally account for the occasional occurrence of deleterious miasma, since it is only necessary that the process of elimination and combination, shall be somewhat modified in order to vary the compound.

We not only know by actual observation that this febrile poison is the product of certain situations, but we know equally well, that it has not the power or property of extending far from its source of generation. Some years it is more extended than others; this may sometimes be owing to a longer continuance of the generating causes, particularly a suitable state of moisture, and a high temperature of the atmosphere. Of the first point, we know that copious rains are equally effectual as are the white frosts of autumn in the subversion of this poison—of the se-



cond point, we know that this poison is never formed in considerable quantity where the surrounding temperature is below that necessary for sustaining the different processes of fermentation. Whether the very fortunate circumstance of this poison being so little calculated to extend its deleterious influence, be owing to its ponderosity, or to its perishable nature, I shall not attempt to decide. But it may be said confidently, that all the information which we have on this subject leads us to believe, that the most remarkable characteristic belonging to contagious diseases, as small pox, for instance, is, that it is not hindered in its operation by things exterior to the living body upon which it is to act; that is, it adheres permanently to most substances and floats in the air; while, on the contrary, the malaria of fever is so perishable that it becomes enfeebled, and destroyed, probably almost as fast as generated. This last position is fully established, by the series of facts which I have already stated; to which I will here add a remarkable fact, that came under my notice in 1820. There stands a pretty extensive building in Baltimore, on a line with the greatest extension of yellow fever in that direction, from the low grounds, and where this epidemic has never appeared more than twice. In the year alluded to, this building was occupied as an auction store; in the lower story there occurred several fatal cases of fever, (either four or five.) So soon as the unhealthy state of this building was discovered, the lower part underwent a thorough cleaning, the walls were washed with lime, and the cellars well sprinkled with unslacked lime; some wet places were filled up with clean sand. The lower story was now shut up, but during all this mischief below, and during the remainder of that season, there lived in the upper story a poor family, consisting of four or five members, who all enjoyed uninterrupted good health. These people had no direct communication with the rooms below, but the outer door being on a different street, it can scarcely be doubted that the poison which destroyed the inmates below had not ascended to the upper story.

It would seem that if the above facts prove any thing at all, they most incontrovertibly prove, that the yellow fever of our North American cities is the product of a miasm generated in our soil, in certain situations; or of vegetable substances in a state of decomposition, of peculiar character. Many writings, from Hippocrates down to the present time, go to prove the identity of the febrile epidemics, which have existed from time to time, along the coasts of the Mediterranean sea, and those of our American cities; also in the East and West Indies. These I shall not attempt to trace for reasons already given; but wish to call the attention of this learned body, for one moment, to the

great plague of London, as described by Dr. Sydenham, in the year 1666. This disease was ascribed to contagion brought from the east; but let us for one moment look at the circumstances connected with the London fever, and I think we shall see abundant reason for believing, that as no plague is imported into London in more modern times, so, neither was it imported into that city one hundred and sixty-four years ago. To presume that the police of London could have prevented the importation of febrile poison, if it were really transportable, for so long a period, would be so much contrary to any thing like common sense, that I shall not attempt an argument on this point—suffice it to say, that the original marshy situation of London, together with the vast masses of vegetable filth which must have been collected, before proper attention was paid towards correcting this evil, afforded all things requisite, except a warm sun, to generate miasmatic poison; but, in process of time, great improvements have been made in draining, and building over marshes; so that when we add to this fact the circumstance of no more material being deposited upon the alluvial grounds, we must believe that the material affording febrile gases must have become exhausted; and hence it is that London has long been exempt from her former plagues, or in more modern language, from her malignant fevers.

I gave some intimation in the outset of this dissertation, that it is not less desirable to find out preventives, than to find remedies for the diseases of mankind. In this communication I shall confine myself to the former. If I am right in espousing the opinion of the non-contagious nature of the yellow fever; and in believing that this disease is the product of malaria, it will follow, as a matter of course, that this disease can never be transferred from any one seaport to another; and consequently all restrictions adopted, or employed, in the form of quarantine, are irrational; and impolitic impositions upon commerce. It will appear from this view of the subject, that it is my object, in writing at present, to add my mite to what has already been done, by the profession, to rid the world of this vexatious restriction upon commerce. And while I lament the obstinacy with which some of the countries in the south of Europe, adhere to this antiquated opinion, notwithstanding that the disease so much feared is frequently endemic within those countries, I rejoice to find, that, in my intercourse with the learned in the profession, in Germany, I find many of them non-contagionists. Should I be the happy instrument of aiding them in furthering the entire establishment of a rational employment of quarantine regulations, I shall think that I have not lived in vain; since this question not only involves much commercial interest, but many

lives must continue to be lost, by malignant diseases, while the *profession*, and governments, are looking to the sick on ship-board, from which they have nothing to fear; and neglect the removal, or correction, of the sources of poison within their own wet or alluvial soil, &c.

It remains to give some account of our quarantine regulations, which are founded on the opinions which I have presented, on the various points of the subject under consideration.

We have a safe harbor within one mile of our wharves, at Baltimore, which is called the quarantine ground. Our pilots are instructed to bring every vessel to at this quarantine ground. Then there is a health officer, an able physician, whose duty it is to keep an office, so situated that he can see every vessel as she comes to, and to board her with all convenient speed. It is understood to be his duty in boarding, to examine into the state of the vessel and cargo: if the vessel be foul, or any part of the cargo damaged, these must be corrected before the vessel can proceed to the wharves. If the case is remarkable in either respect, the vessel is ordered to the Lazaretto, about a mile further off: and, there the necessary purification is effected; sometimes in a few hours, sometimes one, two or three days, as may be required to effect this purpose; but so soon as the health officer is satisfied of this fact, the vessel is permitted to pass in. But if the vessel is found in a clean state, and the cargo sound, there is no further detention; nor is any detention made on account of there being sick persons on board—if there be any whose cases are suspicious, as relates to malignant fever or small pox, they are sent to the hospital, because this is the best place for strangers: if they have families, they are not prevented from going to their own house except in cases of small pox.

It is also provided, that in the event of any thing divulging itself in the unloading of a vessel, after she shall have arrived at the wharf, rendering it necessary, the commissioner of health, for the district in which the vessel lies, has power; and, indeed, is obliged by ordinance, to order such vessel and cargo back again to the quarantine ground, there to be corrected, before the cargo may be unloaded in the city, or the ship suffered to lie in our docks.

In a word, it is obvious that this plan of operation is grounded on the presumption, that both vessels and cargoes may produce disease, if they bring vegetable matter in a state of decomposition, in warm weather.

This plan, which has been in operation about ten years, from the 1st day of May to the 1st of November, has been found highly advantageous; by it all unnecessary restriction is removed from commerce; and by applying means to the ends in

view, guided by common sense, we not only have guarded against the real dangers which are connected with commerce; but, by taking things as they are seen, we have proved our premises to be correct; i. e. we will not admit foul ships, or damaged cargoes, to come into our port; but we fear no contagion except that of small pox. And we, therefore, subject all vessels alike to examination, whether from one of our own ports, or from any other part of the world, making, indeed, no distinction. These regulations, under the care of my excellent friend, doctor Saml. B. Martin, who has been our health officer for several years, have given the most entire satisfaction; and, the period has arrived in Baltimore, notwithstanding her considerable trade with the south of Europe, and the West Indies in particular, when, we hear no fears expressed of any importation of malignant or yellow fever; and when by the speedy removal of the inhabitants from contaminated parts of the town, we have divested this disease of much of its terrors: all which arises from the opinion, which we hold, that the remote cause of yellow fever is the product of vegetable decomposition, which, so far from having the property of extension, through the medium of clothing or merchandise to distant parts, is so perishable, that, it is never known to pass more than a few hundred feet from its source. Such being obviously the truth, I am truly happy to have had it in my power, this day, to declare to this learned body, and through them, to all Europe, my settled opinion of the non-contagionness of yellow fever. And I derive further happiness from the presentiment, that the day is fast approaching, when all shall unite, in one grand effort, to remove the sources of this evil, and thereby remove one of the scourges of mankind. Let us correct our marshes, and prevent the occurrence of similar causes upon a smaller scale, and this plague shall cease to be known—the yellow flag of our quarantine grounds shall be exchanged for white, the received emblem of peace.

ART. II. *An Essay on the Typhus forms of Fever.* By  
RICHARD N. ALLEN, M. D. of Belair, Maryland.

*Causa verò et radix ferè omnium malorum in scientiis, ea una est; quod dum mentis humanæ vires falsè miramur et extollimus, vera ejus auxilia non quaeramus.*  
Bacon. Nov. Org.

IN no department of science are the imperfections of language, its inadequacy to the designation of real existences in their interminable varieties and modifications, and its liability to mislead the human intellect, more forcibly felt than in medicine. This evil prevails especially in nosology, or the arrangement of diseases into classes, comprising together, those which are related by certain analogies. In the use of the word nosology, we employ it in its largest sense, to signify all arrangements of diseases by general names. However particular nosological systems may be deprecated, it is evident that some arrangement is essential to the existence of this, as of every other science; and that it is impossible either to speak or think of any thing beyond the individual existences which are offered to our senses, without adopting the process of generalization, and imposing names on the classes thus obtained. To advance still further the objects of science, it becomes necessary to generalize to a yet greater extent, by making those primary classes the subjects of ulterior, and more general arrangement. Systems are, therefore, inseparable from every science, and the subjection of nosology to their influence, however disastrous, has yet been unavoidable.

It is even doubtful whether all the supposed reformatations in nosology, have not produced evils more momentous than those which they were designed to obviate. We have no doubt, indeed, that the nomenclature of Cullen\* frequently conveys ideas false in point of fact, and often presents in unnatural and incongruous alliance, diseases which are widely different in nature; but the arbitrary and infinitely varied appellations given to morbid affections by more recent writers, while they are subject to the same inconveniences with the nosology of Cullen, are productive of consequences still more mischievous.

It requires a considerable share of philosophical sagacity, to distinguish *names* from *things*, and we are in perpetual danger of mistaking metaphysical abstractions for real existences. As there is no natural connexion between sounds and the objects which they signify, and as the meaning attached to each word is

\*His *synocha*, *synochus*, and *typhus*, we believe to be modifications of the same disease, and to be shaded into each other by undefinable gradations. The same may be said of intermittent and remittent, though their forms are so very distinct. This will, however, be more fully explained hereafter.

entirely arbitrary and conventional, it too frequently happens that the signification of words is loose and undefined. When the object signified, is of a very complex nature, as is always the case in nosology, the evil is felt with peculiar force, and is in some degree unavoidable. This imperfection of language, as applied to medicine, can be diminished by no other means than long and continued usage. Hence we may infer the serious evil to which the science has been subjected, by the perpetual fluctuation of its nosological nomenclature. Even Chemistry, though its language seems to be more perfect than that of any other science, is beginning to be subjected to a similar inconvenience.

We are persuaded that by far the greater number of disputes among physicians respecting the treatment of diseases, and especially fevers, would, on investigation, be found to originate from the different meanings which they attach to the same words. The idea formed of the aggregate phenomena of any disease, or of any modifications of the same disease, is so exceedingly complex, as to render it plainly impossible for all men to agree in the particulars which it is to comprehend. We might almost as well expect men to agree in their notions of honour and virtue, or in the import of those political appellations, by which in all ages, the passions of mankind have been inflamed, and their judgments bewildered. It is well, that the disputations of philosophers are not familiar to mankind, for if such were the case, their confidence in science itself would be almost totally destroyed. If the practical plans of physicians were as much at variance as their speculative opinions, the results of medical interference would indeed be fatal, and the vulgarest superstition, or empiricism, would be far preferable. Happily however, this is not the case, and we have no doubt, that the great majority of respectable practitioners would agree in the essential parts of treatment in any individual case, when subjected to the investigation of the senses, those faithful hand-maids of science, which are not to be deluded from their path by the *ignes fatui* of theory.

We owe the reader an apology for the length of these preliminary remarks, which, however, seemed necessary to the elucidation of the subject before us. They appear especially appropriate in the present state of the science, when under the specious garb of philosophical induction, the profession has been inundated with theories more purely hypothetical, with terms more vague and unmeaning, than have ever been introduced into any other department of physical science. We are persuaded, that there is no object within the whole compass of medicine, which has been more loosely understood, or less accurately defined, than typhus fever. This name has been recently applied, not

only to almost every variety of fever, but also to various forms of active inflammation. This remark applies particularly to the work of doctor Armstrong, which affords a strong and unquestionable proof of the fact, that when an author has once adopted a theory, his observations on subjects within the sphere of its influence are never to be trusted. This writer, though professing to rely entirely on observation, in fact presents a mass of hypothetical speculation of unprecedented and enormous magnitude. His theories have evidently given form and colour to his observations, and afford a singularly accurate illustration of the remark made by John Bell, in relation to experiments—"that those who abjure theory, and appeal to experiments, are least of all to be trusted; for it is theory which brings them to try experiments, and then the form and order, and even the result of such experiments, must bend to meet the theories which they were designed to prove." One great and pervading error in doctor Armstrong's treatise, is the supposition, that typhus is contagious. This once established, every disease happening to a person who had had any communication with a typhus patient, was immediately referred to contagion. A third, having been in the chamber of the second, would be supposed to have taken the disease from him; and so the error would be continued, *ad infinitum*, through an interminable succession of patients. He therefore generalizes under the appellation of typhus, all the infinitely varied cases which were thus attributed to this imaginary cause. He thus makes typhus fever a *mysterious essence*, independent at once of causes and phenomena—for the only cause assigned, he since confesses to be entirely imaginary; and he brings within the grasp of this phantom, almost every variety, both of fever and inflammation. We are to consider the *essence* as the same, whatever the variety of appearance. He thus has an *imaginary cause*—an all pervading disease purely imaginary.\* What monstrous inferences may we not expect from premises like these?

*Quoteneam vultus mutantem Protea nodo.*

The error is radical, fatal, and pervades the whole work. He comprises, under one general name, diseases utterly different in their nature, and in which the methods of cure are absolutely opposite. He has since indeed recanted the great principle of error which pervades his work, but has not been sufficiently ingenious to acknowledge the fatal confusion which it has introduced.

\* For cases of acute and inflammatory diseases of the brain, classed as typhus, see "Armstrong on typhus fever," Philad. 1<sup>st</sup> edit. 1822, p. 114, &c.

† See the Appendix for a brief explanation of our own opinions regarding contagion.

There are other errors in the work in question which are scarcely less pernicious. His confident recommendation of profuse blood-letting with scarcely any discrimination, in the typhus grades of fever, can never be too strongly reprobated. The general experience of the profession sanctions the observation, that highly inflammatory diseases are of rare occurrence, and that the great majority of cases of fever, but above all of typhus fevers, do not require or bear depletion by the lancet, nor indeed any active evacuation *long continued*. Cases there are indeed—but they should never be called typhus—requiring the utmost extent of depletion, and to distinguish such cases from those of an opposite character, is by far the most important province of medical sagacity; but discrimination is lost in the sweeping theories of this, and other advocates of the same system.

No practitioner so far as we know, neglects to evacuate the alimentary canal in the outset of febrile diseases, of whatever grade; and when doctors Armstrong, Johnson, and others declaim against the premature use of stimulants in typhus, they contend, as is justly observed by doctor Miner, of Connecticut, in his treatise on fever, against a practice which has had no existence among the respectable physicians of the present age.

We have spoken thus freely, because in differing in opinion from writers of established credit, we felt it necessary to sketch, in the outset, the leading principles by which the difference would be guided. A sober review of the innovating doctrines of Rush and Armstrong, would, we are persuaded, be one of the most important benefits which could be conferred on the profession. Mankind will never cease to do homage to the genius of Rush, to revere his moral excellence, and to acknowledge the numerous benefits which he has bestowed on science; but the greater portion of his theories are clearly untenable, and his practice must have owed its merit to its felicitous application by himself, or to the peculiarities of the diseases of his time. He certainly recommends bloodletting and other evacuations more generally and to greater extent, than would be admissible in the diseases of the present day. We have no doubt that his therapeutic precepts often consist of general rules too rashly drawn from the treatment of yellow fever, and other violent diseases. To these alone can such hazardous practice be properly applied. The whole work of Armstrong on diseases so grossly misnamed *typhus*, amounts, in fact, to little more than a tediously repeated recommendation of the depleting and mercurial practice, which was before in use.

We think it had been better, and would have tended much more to the real object of nosological arrangement, the ascer-



tainment of practice, if the profession had limited the application of the term typhus, to that form of fever described under this name by Cullen and others, and which has also been called nervous. As words, however, should always be taken in their familiar sense, except when the purposes of science absolutely require the contrary, we shall use the word typhus in the sense in which we conceive it to be now understood by the great body of the profession. It will have been observed by every one, that in the common language of physicians, this term is understood in several senses. 1st. It signifies that precise form of typhus disease, which is co-incident with nervous fever. 2ndly. It is used to designate an accidental state of typhus debility, liable to supervene on all fevers, and indeed on several other forms of disease. 3dly. It is applied to all fevers of typhoid type or tendency. We shall confine our general description to the first form of disease—to describe all the symptoms occurring in typhoid fevers, would be as impossible as to define the form of Proteus, or to fix the colors of the chameleon. In speaking of treatment, we shall, however, annex such explanations as we trust will afford a clear view of our meaning, and of the states of disease to which we refer.

Before beginning the discussion of typhus, it appears necessary to submit our views of fever in general, without which, our opinions in regard to this particular form of it, could not be properly explained.

We are disposed to think that all *idiopathic* fevers have the same remote\* cause, present trains of phenomena in many respects analogous, and *are convertible into each other*.† They are, however, divided into three great classes—intermittent, remittent, and continued. Each of these classes is capable of being

\* Although, in deference to established usage, we adopt this term; yet we are clearly of opinion that the division of morbid causes into remote or predisposing, and proximate or exciting, is altogether arbitrary and unnatural. Between the remote cause, or that cause which determines its nature, and the disease itself, there is an infinitely varied chain, consisting partly of the natural train of effects afterwards determined by the laws of the animal economy, but indefinitely modified by the continued action of the same remote cause, and by the various accidents of life. Predisposing causes are different from the remote cause, as are the exciting from the proximate. Thus in the case of fever, debility, plethora, &c. &c. may be predisposing causes, but miasma is the only remote cause—cold, intemperance, &c. may be exciting causes, but we understand the proximate cause to be the disease itself. It is that morbid condition which is the *immediate* cause of the phenomena.

We have subjoined this explanation, only that we may be understood when we adopt the terms referred to.

† For an explanation of this opinion, see the appendix.

indefinitely varied by the diversified circumstances under which the cause may act, and by its different degrees of concentration or intensity. The modifications thus arising, requiring very different treatment, have been designated by distinct names. Thus, intermittents are arranged according to their type,\* into quotidians, tertians, quartans, &c. And by fortuitous complications, or the degrees of their violence, into malignant, &c. Remittents also appear in various forms, from the mildest autumnal fever, of the temperate latitudes, to the yellow fever, and those various destructive epidemics, which are ever spreading desolation among the inhabitants of the tropical regions. Continued fevers are frequently autumnal diseases of various grades; sometimes they appear in the mildest form, and are of little more than ephemeral duration: while at other times, and in various seasons; but especially in the winter and spring, they assume the form of wide-spread and desolating epidemics. Nature submits to no definitions, nor conforms to any theoretical abstractions; and the infinite variety of fever can never be circumscribed by definitions, or defined by words. Classification is indispensable to science, but the variations presented in every class and every order, must be co-extensive with the diversified external physical agents to whose influence the human body is subjected, and with the still more inscrutable modifications of the animal economy and the laws of life.

In the description of typhus fever, little more can be done than to adopt the history of its symptoms given by all nosologists, which, the disease being strongly marked, is singularly accurate. Its application must be confined, however, to the nervous fever of nosological writers, a form of disease, which, though not common in the country, must be familiar to every experienced practitioner. To this the general description of *simple typhus* given by doctor Armstrong himself very nearly corresponds; though he afterwards treats as complications of the same disease, cases which have not the remotest analogy to this general description.

True typhus or nervous fever, occurs generally in the winter; the typhoid fevers, and the typhus state are liable to take place in all seasons, and are especially frequent in the autumn. We have no doubt that it arises, in common with every other form of idiopathic fever, from the impression of marsh miasma.† This,

\* The words type and grade, when applied to fever, are very frequently synonymous, being used to indicate the degree of debility or excitement, &c.

† The term marsh *miasma* is synonymous with *malaria*, *marsh effluvia*, and the various other terms which have been used to designate that contamination of the atmosphere which is generally admitted to be the re-

in consequence of a peculiar degree of impression, of modifications in the constitutional susceptibility, together with the succeeding action of cold or other agents, is suspended till the approach of winter, and modified into that form of disease called typhus. We think it much more probable that typhus is the result of miasmatic impression thus suspended, than that it is produced by a similar cause, acting shortly before the development of the disease. This question, however, it is vain to argue, as no practical inferences can be drawn from either supposition, and neither is easily susceptible of proof. Of the long suspension of the effects of morbid causes, we have a very striking example in the tendency to a recurrence of fever in the intermittent form, in the summer or autumn, succeeding a febrile attack of any kind suffered in the preceding year, without any renewed application of the original cause. In this and other cases of a similar kind, the cause of the remote affection must have remained constantly in the system, but by laws of the animal economy of which we are otherwise ignorant, its effects are suspended to a distant period.

It is well known that typhus may be aggravated by accidental causes, and by the occurrence of anomalous, and, what are called malignant symptoms. It is this aggravated form which, under various circumstances, has been called typhus gravior, jail fever, hospital fever, &c.

The occurrence of typhus is favored by every cause producing debility of body, or depression of mind. We believe it rarely occurs in infancy, but it is apt to pervade the families in which it arises. This circumstance is sufficiently accounted for by the common subjection of all the members of the family, to the operation of the same remote cause, without resorting to the generally exploded doctrine of contagion. The non-contagiousness of the disease is indeed clearly proved by the fact, that it is never contracted by the medical attendant, or by any others who do not remain long exposed to the local causes. To say with doctor Hosack, that typhus is a disease *contagious in foul air*, appears to be nothing more than asserting, that the same air capable of producing it in one person, may also produce it in another.

remote cause of fever. It does not necessarily imply the vicinity of a marsh, but will of course be generated by the operation of similar causes on any position of the surface of the earth. We have no doubt, that by its various degrees of impression, modified by the extent to which it is applied, by constitutional idiosyncrasy, and by the simultaneous operation of other morbid agents, arise various forms of intermittent, remittent, typhoid, and typhus fevers; also the dysentery, pneumonia typhoides, and other diseases, commonly called bilious. To this morbid principle we shall hereafter apply the simple name *miasma*, and shall call its effects *miasmatic impression*.

In fact, it is either a self evident truism, or involves a gross violation of philosophical reasoning.

So far as our own observations extend, the typhus of the country for the most part occurs in situations which are also favourable to the production of the typhoid forms of autumnal fever, and of mild intermittents and remittents. It appears to be caused by that degree of miasmatic impression which falls short of developing itself in autumnal remittent or intermittent fevers. We believe it is more rare in those situations where miasma prevails to such extent as to produce immediate disease. All fevers recurring in the winter, after attacks suffered in the preceding fall, are more liable to assume the typhoid type. The same may be said of every form of inflammation accompanied by that disorder of the gastric functions, denominated the bilious diathesis.\* It is a singular fact, and apparently inconsistent with the last observation, that typhoid inflammations are much more liable to prevail in high and healthy situations. The same may be said of dysentery, and an explanation of these anomalies is to be sought in the modifications of miasmatic impression.

That stage of typhus which is called the forming stage, or the stage of oppression, is of very various duration, but generally occupies three or four days. The simultaneous prevalence of the disease affords, perhaps the only tolerably certain criterion, by which the symptoms of its approach can be distinguished from those undefined complaints, which either precede the attack of other diseases, or which frequently pass away without the occurrence of any serious indisposition. Those symptoms, so far as they have fallen under our observation, are nearly the following: languor and lassitude; sensations of weariness or aching in the limbs, occasional pains of the head and back; costiveness, dry, hot, and constricted skin, weak and frequent pulse, loss of appetite, furred tongue, frequent sensations of chilliness, and generally from the first, a disturbance of the sensorial and nervous functions, evinced by a slight degree of subsultus, and by depression of spirits. It will be observed that none of these symptoms are diagnostic; but if the tongue be considerably furred, at the same time when there exist several of the other complaints above enumerated, and if the situation or season be such as would lead us to suspect the approach of typhus, we may conclude with tolerable certainty that its attack is at hand.

\* This is true, not only of pneumonia, but also of rheumatism and other winter diseases. The only inflammation which we have never known to assume the typhoid type, is that of the brain. Although, we have occasionally known this disease to supervene on typhoid forms of fever, we have never known it to be typhoid, when the attack was primary.

The disease is commonly at length developed by an increase of the chilliness, succeeded by greater excitement, increased heat of skin, augmented disturbance of the gastric functions, aggravation of the pain in the head, back, and limbs, and increased disturbance in the functions of the brain, and nervous system. This state, which has been called the stage of excitement, generally lasts from one to two weeks, within which period the patient sinks into the third stage, which has been called the stage of collapse. There is no line of demarkation between these latter states, but the transition from the one to the other is for the most part entirely gradual; corresponding with the gradual approach of that debility and exhaustion of the vital powers, which is of the essence of the disease, and to which, from the earliest periods, there is a marked and decided tendency.

The pains, whatever parts they may have occupied, become diminished, and are less attended to by the patient, the pulse becomes more frequent and feeble, but generally less quick;\* the tongue first becomes dry, and then gradually changes its colour to various shades of brown, terminating in black, or in a smooth shining red, with cracks or fissures; the skin generally continues dry, hot, and constricted; the subsultus tendinum increases, delirium sometimes ensues, and the patient almost uniformly sinks into a state of constant stupor, from which he can at any time be roused, but immediately relapses. In a great majority of the cases which we have seen, constipation has continued through every stage of typhus. We have in some cases seen diarrhoea occur, but it appeared to be accidental, required to be controlled by astringents, and was in fact a troublesome symptom, always seeming to increase the danger. The thirst which doctor Armstrong says is a general symptom of the stage of excitement we have rarely witnessed, to any considerable extent. We have not observed the respiration to be much affected in any stage, except on the approach of death.

In this imperfect sketch of the symptoms of typhus, we have purposely refrained from consulting any book whatever, but have rested entirely on a recurrence to our own recollection, and to cases which we had previously recorded. We must mention, however, that the above symptoms are liable to con-

\* Frequency and quickness of the pulse are frequently not distinguished. The pulse is said to be frequent, when a greater number of pulsations than natural is performed in a minute—it is said to be quick when each pulsation is performed in less time than natural. Frequency relates to the time occupied by a given number of pulsations; quickness to that in which a single pulsation is performed.

siderable variation,\* a property which indeed is common to those of all other diseases. The conditions of the skin and pulse are especially liable to be irregular; the former being sometimes morbidly relaxed, and below the natural temperature; while the latter is occasionally subject to intermission or other irregularities. It must be observed that subsultus tendinum, which, when supervening on other diseases, is always an alarming symptom, being almost inseparable from the existence of this, and being frequently one of its earliest symptoms, can afford no ground for prognosis. Its remarkable increase, however, in the latter stage, may become a just cause of alarm.

The third stage of typhus is like those which precede it, of uncertain duration, occupying from one to three weeks, or even a longer period. It is common for a crisis to occur, and for convalescence to begin, some time in the third week from the formation of the stage of excitement.

We must confess that the above description is applicable only to a certain form of typhoid disease, but it is that form to which the name of typhus or nervous fever has been appropriated by all nosological writers, before the present age. Fevers of typhoid type and nervous character, assume very various appearances, and constitute an extensive class of febrile diseases. The particular form above described is not frequent in the country, whereas nearly all the fevers occurring in winter, are of the synochus or typhoid grade, and marked by disturbance of the nervous system. They differ, however, from the disease which is the subject of our description, in many important particulars. 1. In the latter, the forming stage is more commonly marked by premonitory symptoms of several days continuance; in the former the attack is frequently ushered in at once by a distinct chill, or by chilly sensations, immediately succeeded by increased heat, pain of the head, back and limbs, and nausea. 2. The duration of the former is both shorter and less determinate. If proper measures be pursued, convalescence will very commonly commence in the first week, and will seldom be de-

\* It is established on the highest authority, that the symptoms described as marking the stage of collapse, sometimes immediately occur, as soon as the disease is formed. Here we have, in reference to treatment, no stage of excitement; and we must resort to stimulants, immediately after the cautious evacuation of the alimentary canal, or even join them with the first evacuations.

† We are not aware that the term synochus is now used by the profession, in any other sense than to designate middling grade of fever, intervening between synocha, or the inflammatory grade, and the typhoid estates. In this sense we employ it. Dr. Cullen perhaps means the same thing, by calling synochus a combination of synocha and typhus.

layed beyond the second. 3. If these typhoid and synochus fevers be correctly treated in the beginning, they will very rarely assume the symptoms of extreme prostration, which are in general characteristic of the form of fever which we have above described. Black or smooth red tongue, great debility and stupor, are symptoms which generally arise in typhus, when it is not cut short in the first stage; whereas in the ordinary fevers of winter, they are of rare occurrence. In these latter forms of disease, stimulation is rarely necessary, and medical interference should perhaps, in general, be limited to the free evacuation of the alimentary canal at the outset, and to sustaining the functions of the skin and intestines in the succeeding periods.

It will be evident that the question, whether these fevers be really typhus, resolves itself into the inquiry whether they shall be called by that name. The theory of contagion alone has tended to confound the minds of physicians in regard to the identity of the ordinary winter fevers with typhus. Admitting this theory, the inquiry would be, whether they are produced by the same contagion, but rejecting it, the discussion terminates in a vain and futile dispute about the meaning of words. For our own parts, except in marked cases of intermittent, remittent, or typhus as above described, we are averse to specific distinctions, and prefer always to adopt the simple term *fever*, designating its varieties by circumlocutory explanations. This mode of speaking and writing on the subject, we think far more philosophical and less illusory, than an attempt to distinguish by specific names all the forms of fever, which are almost as various as individual cases.

It is extremely common for local inflammation to supervene on typhus, but especially during the stage of excitement. In a great majority of the cases which we have seen, this inflammation has been confined to the lungs and their membranes. It has often been attended by spitting of blood, but we have never seen any permanent disease follow from this pulmonary affection. It has generally passed away with the disease, of which it was a symptom; and even in the most scrofulous families, we do not recollect any case which terminated in consumption. It may indeed be remarked in general, that pulmonary inflammation, occurring in acute diseases, possesses by no means the same importance as when it is the primary disease. Sometimes, though rarely, according to our observation, the inflammation occupies the brain or its appendages. And this seems to constitute one of the most intractable of its complications. It appears more apt to be aggravated by the stimulants often necessary, than any of the other forms of local inflammation. En-

teritis also occasionally occurs, and is perhaps the most fatal of all the local affections liable to be complicated with typhus. It is fortunately not frequent, but we have seen it take place in cases where the fever had not before a threatening aspect, assuming all the violence of an attack of colic, and terminating rapidly in gangrene.

We now proceed to the treatment of typhus, and on this subject we can perhaps offer little that is new. We shall, however, give our opinions with freedom, and state with candor the results of experience, on which alone we rest the authority of our observations.

1. *Bloodletting.* The most important question at the outset of our inquiries, arises on the propriety of venesection. Unless, however, the terms adopted in this discussion be cautiously defined, there will be danger that the writer and the reader may form different ideas of the cases, in relation to which its propriety is to be discussed.

In that form of typhoid disease which is the subject of our general description, and which, as we have before said, is the state of disease described by writers under the name of typhus or nervous fever, we think that bleeding can rarely, *if ever*, be advisable. If there be any cases in which this evacuation is admissible, they must be those *only* in which it is complicated with local inflammation of some of the vital organs. If an urgent affection of this kind, especially of the brain or intestines, should occur in the earliest stage of typhus, as above described, it may be worth while for the sake of temporary relief, to risk the increase of the succeeding debility, and to bleed when we would not otherwise have judged that measure proper; but no circumstances whatever can justify the production of extreme prostration. By such a hazardous proceeding, the local disease would not be relieved, while those powers of the system which would have sustained the patient in the struggle, might be irretrievably exhausted. It has been too common to infer from appearances of inflammation on dissection, that the antiphlogistic treatment should have been adopted. No inference could be more erroneous. When the disease proceeds to a fatal issue, the ravages of local disease must of course continue uncontrolled by the powers of nature; but it by no means follows that those ravages would have been arrested by venesection. In fact, the existence of cases of the most acute inflammation, in which the lancet is wholly inadmissible, is now familiar to all practitioners. Typhoid pleurisies are a familiar example; and the inflammations occurring in typhus are of a similar character.



Inflammation is said to consist in a debilitated condition of the local blood vessels, accompanied by enlargement of their diameter, accumulation of the blood in the part, and its other phenomena. This state of the affected part may, however, exist, without any increase of the *vis a tergo*, and in this case the unequal distribution of the blood can never be removed by venesection. The fact is, that such inflammations have, in general, no fatal tendency which does not admit of being counteracted by correct management in other respects; and above all, by the cautious preservation of the powers of the system.\* The relative importance of the temporary relief to be obtained by venesection, and of preserving the vital powers for the long and arduous struggle to which they must afterwards be subjected, should be most cautiously estimated; and such cases are among those emergencies which demand the most refined discrimination, and afford the highest exercise for professional sagacity. Where the propriety of general venesection is questionable, local bloodletting, with such other parts of the antiphlogistic practice as may be appropriated, will be the best means of combatting local inflammations occurring in typhus. When debility has proceeded to a certain extent, it becomes necessary to treat the case as if not complicated with local disease, there being no means of counteracting the latter, except blistering, which, in such conditions, is a remedy of great efficiency. On pulmonary inflammation,† supervening on the typhoid state, bloodletting can never be adviseable, but emetics, mercurials, stimulating diaphoretics, and blisters are the proper remedies.

Having said thus much on the use of venesection in typhus or nervous fever, we proceed to make some observations on its effects in other forms of fever, analogous in character.

The idiopathic fevers of winter, as well as a considerable proportion of those occurring in the autumn and other seasons,

\* Whether there be a *vis medicatrix nature*, is one of the most singular questions which has ever perplexed the schools, and can admit of no difference of opinion among men intending to understand each other, and not predetermined to dispute about the words. As health is a unit, and the morbid conditions infinitely varied, it is evident that, without the intervention of such a power, every wound and every disease must be inevitably fatal. To what irregularities the operations of this power are subject, and what restrictions are imposed on it, is a philosophical question to be determined solely by observation, and involves the whole science of therapeutics, which teaches nothing more than the removal of whatever obstacles may impede the efforts of nature to restore health.

† It is well known that there are some cases of dysentery, and in certain seasons, many of pleurisy, in which a state of the system occurs where all evacuations are improper, and it becomes necessary to regulate our measures exclusively by a reference to the constitutional debility.

are generally of a typhoid or synochus grade, and apt to be attended by nervous symptoms. This observation is, however, liable to many exceptions, and cases requiring considerable variety of treatment will be found, not only in the same seasons, but even simultaneously existing in the same family. Every practitioner must have seen examples of this kind—where, under the same roof, and in patients labouring under the same form of fever, some cases have required venesection, while others would not admit of that evacuation. Even those cases, however, which require this remedy, will seldom bear its repetition, and the quantity of blood necessary to be taken away, will rarely exceed from ten to fifteen ounces. Every physician will have observed a marked distinction between those forms of fever, and diseases of a high inflammatory character. After the first reduction of the excitement to the proper grade by one bloodletting, an inordinate force of arterial action rarely occurs in the former; while in the latter there is a constant tendency to a recurrence of the inflammatory symptoms. As to local bloodletting, the impossibility of obtaining leeches in the country, and the great inconvenience of performing it in other modes, have rendered our experience very limited.

We must now close this branch of our subject by a few remarks of general application. We presume that by a due estimation of the age and constitution of the patient, and by a proper consideration of the tendency of the diseases simultaneously prevailing, we will be enabled to form a sufficiently accurate judgment of the propriety of venesection from the symptoms of each individual case. The tendency of the prevailing diseases is a most important subject of consideration, and should determine our course in every case of doubt. It is also proper, in doubtful cases, to premise other evacuations, and, to await and observe their effect. It may also be adopted as a general axiom; that in all cases of *typhoid tendency* in which the symptoms present render us doubtful as to the propriety of bleeding, it is safer to omit, or at least to postpone it. In such cases it will be safer to err by using too little than too much evacuation, and especially by the lancet. Other modes of depletion, assisted by local remedies, will commonly afford the relief which we might be disposed to seek from bloodletting. *Respice finem* is a precept as important in medicine as in morals, and teaches us in the outset of diseases to have perpetual reference to the subsequent conditions, which, in their ulterior progress, are likely to become the sources of danger.\* It is impossible here to dis-

\* The importance of regarding the tendency of diseases may be illustrated by the following example. Let us take two patients, one labouring under the inflammatory, and the other under the typhoid form of pneumo-

cuss at greater length, the general symptoms by which we are to determine the propriety and extent of venesection. This is a subject whose importance pervades the treatment of all diseases. The best treatise on it which we recollect to have seen, is that of doctor Coates, published in the 15th No. of the "Philad. Med. and Phys. Journal," to which we beg leave to refer.

We cannot leave the consideration of bloodletting in typhus, without adverting to the new fangled terms introduced into its pathology by doctor Armstrong. This writer designates every case of this disease, complicated with local inflammation, by the name of *inflammatory typhus*.\* To this heterogeneous and discordant appellation we can have no other objection, but that it involves a gross abuse and perversion of the language heretofore established among the profession; and though defined by the writer with sufficient accuracy, yet it tends to mislead the minds of a portion of medical practitioners, and was framed, we doubt not, with the especial design of sustaining the views of its author in regard to practice. The mere circumstance of being complicated with local inflammation, we believe, never before gave to any disease the epithet *inflammatory*. On the other hand, primary inflammations are frequently divided into *inflammatory* and *typhoid*. We thus speak of inflammatory pleurisies, typhoid pleurisies, &c. We, therefore, protest against the right of doctor Armstrong, or any other individual, to mould the settled language of medical science into such forms, as may render it an appropriate vehicle of his own theories. We object equally to the other variety in this author's division, which he terms *congestive typhus*. We believe the supposed state of congestion to be in general an absolute chimera, unsustained by a solitary fact. The veins are said, even in health, to contain three-fourths of the entire mass of blood, and it is universally known, that the arteries are still further emptied in *articulo mortis*.† An irregular action in the arteries at this period of agony and convulsion, must, of necessity, produce irregular accumulations in the veins.

nia—let us bleed them both to exactly the same point of arterial debility, and examine their condition in twenty-four hours afterwards. The circulation of the one will have sunk still lower, and perhaps irretrievably; while the pulse of the other will as certainly have acquired additional force, and require still further depletion.

\* See Armstrong on typhus fever, Philad. edit. 1822, p. 110.

† Morbid anatomy, though of high importance in demonstrating the ultimate effects of disease, frequently sheds no light on its origin, but is rather an *ignis fatuus* to mislead us from its original seat. Thus the sources of hydrocephalus are admitted generally to exist in the alimentary canal; and a sympathetic irritation from the same source may destroy the structure of the lungs. The phenomena indicating unequal distribution,

There are two states of disease to which the term *congestion* may, perhaps, with propriety, be applied. 1. The first is that condition which occurs in the beginning of some violent or malignant diseases, when the powers of the system not being able to overcome the first shock, re-action is not established, and the blood remains accumulated in the interior. 2. The second consists in irregular and undue accumulation of blood in any of the organs which differs from inflammation, as this is seated in the capillaries. This condition is liable to occur in all diseases, but there is seldom any evidence of the accumulation being seated in the venous system, rather than the arterial; nor are we aware that either its frequency or its importance in typhus is such as to warrant the application of the term *congestive* to any variety of that disease.

The theories of doctor Armstrong on this subject we believe to be absolutely hypothetical and unsupported by evidence; and we also believe that they have been made the means of introducing into the practice of medicine, and particularly into the treatment of typhoid fevers, the most serious and pernicious errors. This impression of course affords a sufficient apology for the attention which we have bestowed upon them.

We cannot conclude our observations on venesection in typhus, without some remarks upon another opinion of doctor Armstrong, which, when understood in the sense which he evidently wishes to convey, appears to us a most dangerous error. We mean the position which he strongly and repeatedly inculcates—that the stage of collapse is merely the *product of the preceding excitement*—or in language which he elsewhere adopts, that typhus is not a disease of *real debility*.

Considering this doctrine in its first form, if doctor Armstrong, only means that a case of typhus is a *whole* to the constitution of which all its parts are necessary, and that every stage has a necessary connexion with those which precede or follow it, we should admit such a position as an undeniable truism—that the stage of collapse has some kind of connexion with the preceding stage of excitement is perfectly evident; and as this relation is one of invariable or general sequency, it may be called the relation of an effect to its cause. But the question—*how is this*

and partial accumulations of the blood, have been ascertained to exist in most dead bodies, and in the bodies of those who have died from the most different causes. Thus it seems, that in persons hanged or drowned, there exist the same appearances of turgidity in the vessels of the alimentary canal, which have led Broussais to resolve all diseases into inflammation. We have no doubt that the inferences of Armstrong and Broussais are equally erroneous.

*effect produced?*—is here momentous. Is it by the impetuosity of the preceding excitement, or by a gradual failure of the powers of life—an exhaustion which is of the essence of the disease, whatever may have been the character of the preceding excitement? We have no doubt that the latter is the truth, and that the tendency to sinking, far from having any necessary connection with a preceding excitement of a *sthenic* character, is greater in proportion as this excitement has been languid and *asthenic*.

The word *excitement* itself is much abused, and by no author more than by doctor Armstrong. The abuse is dangerous, when it is made an instrument for generalizing in favor of sanguineous depletion in typhoid diseases. Every practitioner should bear in mind, that the disturbance of the arterial system denominated *excitement*, may be of very various grades, from the most impetuous tumults arising from active inflammation, to the lowest forms of adynamic or typhus fever.

2. *Purgatives*.—This class of remedies is of primary importance in every form of fever, and under certain modifications and restrictions, they become necessary in all its grades. A morbid condition of the alimentary canal and its contents, is an essential link in the chain of febrile action, and is the immediate cause of the most striking phenomena of fever. The control exerted by the digestive organs, over all the functions of the animal economy, and especially their direct and important agency in producing those disorders of function which constitute the symptoms of fever, have been properly estimated by nearly the whole profession ever since the publication of doctor Hamilton's invaluable treatise on purgative medicines. The mode of their operation in the cure of fever, so far as known, is a subject so familiar to physicians, both in writing and conversation, as to render any speculations of ours wholly superfluous.

Whatever purgative may be selected at the outset, calomel should always be one of its ingredients. Besides its important effect in dislodging the contents of the alimentary canal, and producing consistent discharges, it is universally admitted to exert a powerful and beneficial agency in restoring the healthy functions of the liver and skin. In cases where the system may have been agitated by the previous use of emetics or other remedies, and in certain cases of considerable pain or spasmodic action, it will frequently be found useful to add to the calomel a large dose of opium, and suspend for a few hours its cathartic effect. The agitation or spasm is thus allayed, and time is afforded for the mercurial medicine to produce its peculiar effects on the liver and skin. At the end of ten or twelve hours, a dose of some common cathartic may be given, and repeated in smaller quantities every two or three hours, till the intestines be fully

evacuated. Castor oil, infusion of senna with sulph. magn. or calcined magnesia, diffused in a solution of the sulphate, are perhaps at this period, as good forms of medicine as can be adopted. The saline medicines *alone* are not so eligible, on account of their tendency to excite the intestines to serous secretion; jalap is too irritating in cases of debility, or where there is any tendency to inflammation; and rhubarb does not possess sufficient activity.

In cases of mild fever, originally typhoid, it will very frequently be unnecessary to give more than one active cathartic. To sustain regularly the action of the intestines by moderate, but efficient laxatives, will afterwards be in general sufficient. The degree of catharsis to be adopted in typhus, like the extent of depletion in all cases, and the precise direction of all medicinal agents, must ever be defined by the judgment of the practitioner, and can be but imperfectly ascertained by general rules. It may be laid down, however, in general, that while the symptoms of fever run high, especially if there be any urgent local affection, active purgatives may be repeated at short intervals, while the strength of the patient appears sufficient to support their operation. These intervals may vary from one to two days, according to the urgency of the symptoms which we may seek to control. In affections of the brain appearing in the early stage of typhus or typhoid diseases, they may perhaps be used with greater freedom, and are more indispensably necessary, than in any other form of local inflammation occurring in such cases. Where nausea, yellowness of skin, or an uncommonly morbid condition of the previous discharge, may indicate that the contents of the intestines still retain, in a high degree, their morbid character, a longer continuance of active purging may be necessary. It must always be remembered, however, that there are limits prescribed by constitutional debility, which should never be transgressed. When he has arrived at those limits, is sometimes one of the most difficult subjects on which the practitioner is called to exercise that discrimination which is the most important faculty in the exercise of his high and responsible profession.

When the judgment of the practitioner shall determine that active purging is no longer necessary or admissible, the regular action of the intestines should be secured by the periodical use of some efficient laxative. The form of medicine which we have most commonly used for this purpose, is a combination of calomel and rhubarb, in the proportion of from two to five grains of the former, to fifteen or twenty of the latter. The precise dose of these articles may be regulated by reference to the extent of evacuation desired, and this must be determined by an estimate

of the constitutional debility, and the morbid nature of the matters which it may be designed to remove. Even, though the contents of the alimentary canal should be as little removed from their natural and healthy condition, as is consistent with the existence of any constitutional disease, still it is evident that they would become morbid by retention, and their regular expulsion, though to be effected by milder medicines, and at longer intervals, would not be the less necessary. Indeed it is a subject of universal observation, that even in health, when the contents of the intestinal canal are retained, beyond the accustomed period of discharge, they uniformly become a source of irritation and disorder. That constipation existing in the irritable state of fever, would become the cause of still greater irritation, and of much more important functional disorder, would be expected *a priori* on grounds of reason, and universal experience has established the fact.

Our practice, after the discontinuance of full and active purging, has been, to give a dose of calomel and rhubarb, such as above described, every second or third evening, so as to operate on the succeeding morning. As the bilious symptoms wear off, and the debility increases, the calomel is omitted, and rhubarb is used alone in a similar manner. When this prescription fails to act on the succeeding morning, against ten o'clock, a minute dose of castor oil, or sulph. mag. may be given, and repeated every four hours, till it produce the desired effect. In the latter stages of the disease, however, it is often better to await for a longer period, the action of the rhubarb, or to promote its effect by an enema. We must here observe that we think rhubarb by far the safest laxative medicine which can be used in low states of fever; it produces less debility than any other, either of the general system or the digestive organs; and is much less liable to exceed in its action the expectation or wish of the physician.

These laxatives should perhaps be used every second day, in the period immediately succeeding active evacuation, and in the later periods at intervals gradually prolonged according to the debility present, and the other indications. The practice of producing several full discharges every day, is adapted only to the early stage of the fevers of which we are treating; however proper it may occasionally become, in protracted cases of autumnal disease, originally of a highly bilious character; we must observe that autumnal fevers generally, if properly treated, will either terminate favorably in a moderate period, or will become intermittent. In the latter case, *bark or quinine* should always be resorted to, as they are indispensable to arrest the paroxysms,

and need not prevent the simultaneous use of laxatives,\* so as to procure regular intestinal discharges. The practice of purging for a long time in intermittents, to the exclusion of bark, however morbid the discharges, can never be too strongly reprobated. There is no truth relating to the practice of medicine of more universal application, than *that every intermittent fever, not attended by visceral inflammation, can be controlled by the proper use of bark.* The discharges will be morbid as long as the disease exists, and this can be arrested only by bark. Arrest the disease, and under any judicious management, the discharges will soon become natural. In unhealthy situations, the renewed application of the causes, will indeed often keep up disorder of the biliary secretion; but these and all other disorders will be greatly aggravated by intermittent paroxysms; and these should *always* be arrested by bark, whatever other practice may be at the same time pursued.

From a neglect of the precautions here laid down, we have often seen diseases of an intermittent character, which, after due preparation by purgatives in the outset, could have been controlled with perfect facility by bark, assume by long continuance the continued and typhoid form, and ultimately become most dangerous cases of typhus. Hence will be seen the propriety of introducing these observations here, and their strict relation to the subject before us. We knew a case during the last autumn, in which continued purgatives were given for six weeks, in a disease originally intermittent, and which, during all that time, retained the intermittent character. This course was continued because the discharges were morbid; the disease proceeded, and they of course continued morbid. At length another physician was consulted, on account of the illness of the first—he prescribed the immediate use of bark, the paroxysms were *immediately and permanently arrested*, and convalescence was established. We could accumulate numerous cases of the same kind, but attended by much more serious, and some of them by fatal consequences; and there is nothing of which we are more entirely convinced, than that bark, for certain speculative reasons, is fatally neglected by a considerable number of the practitioners in this state.

We return to the consideration of the use of laxatives in typhus. In cases of highly critical and dangerous debility, where the support of the powers of life by stimulants, affords

\* If our recollection be accurate, the simultaneous use of bark and purgatives is sanctioned by Lind, Cleghorn, Senac, Torti, and nearly all the able writers on intermittents. Bark should never be neglected long in these forms of fever, merely because the intestines may require occasional evacuation.



the only means of continuing its duration, all evacuation from the bowels should be avoided, or suppressed till the crisis be past. This admonition is perhaps too much neglected in books, and especially in the fashionable treatises of the present day; but we are persuaded that its importance will be duly estimated by every judicious and experienced physician. A spontaneous looseness of the bowels is always a troublesome, and often a dangerous complication with low states of typhus, and rhubarb has a particular advantage over other laxatives, in having less tendency to leave them in this condition.

We must observe, that a much more active and longer continued use of cathartics and laxatives, but particularly of calomel, is necessary in the typhoid fevers of autumn, than in similar grades of fever occurring in winter. From the greater degree of *miasmatic impression* in the former season, the contents of the alimentary canal are morbid in a higher degree, and this morbid condition is kept up by the greater extent of disorder in the hepatic and digestive functions. This last, we have no doubt, is also continued by the repeated application of the cause; as indeed is clearly shewn by the great relief obtained by removal beyond the sphere of its influence. In autumnal fevers, therefore, though of the typhoid type, a *daily* expulsion of the contents of the bowels should be secured by mercurial and other laxatives, as long as the discharges retain their morbid appearance; *unless such evacuations produce an evident and dangerous increase of general debility*. The modifications and restrictions suggested by the latter consideration can be determined only by the judgment of the physician, cautiously applied to the individual case before him. For the purpose of sustaining this continued action of the intestines, perhaps no forms of medicine are better than those recommended by doctor Cooke\* in his "Essay on Epidemic Fevers," a treatise which is in many respects worthy of the highest attention. They consist of equal parts of calomel, scammony, aloes, and rhubarb.—or, equal parts of calomel, aloes, and jalap. When their continued use produces soreness of the gums, doctor Cooke advises the diminution of the proportion of calomel, or its entire omission.

For our own part, however, we must confess that we have no experience in the use of these precise forms of medicine. Small doses of calomel, followed by small quantities of castor oil, or rhubarb alone, or with calcined magnesia, are the laxatives which we have most generally employed. The two latter medicines have been repeated, if necessary, but at long inter-

\* Med. Recorder, vol. 7, p. 516.

vals; and the calomel, as in the practice of doctor Cooke, has been used or omitted according to circumstances.

In order to explain the great difference existing among authors, even of this day,\* respecting the utility of purgatives in typhus, and the extent to which they should be carried, we must recur to our former observations with regard to the diversity of cases to which the term typhus is applied. The typhoid type is assumed by diseases of very different character, from bilious fevers of a malignant nature, to the mildest forms of nervous fever. A corresponding difference of treatment must, of course, become necessary.

It is to be observed that authors of the present day who treat of typhus, almost uniformly extend their views to other forms of fever, and from those extended views, draw general inferences which should evidently be limited in their application.

Doctor Armstrong includes, under the same title every form of active inflammation. When rules are formed by arranging together such various forms of disease, it is evident that their application must be restricted to cases similar to those from which they were taken.

3. *Emetics.* The importance of this class of remedies in typhus is greatly inferior to that of cathartics. In the forming stage, during the existence of those premonitory symptoms which have been described as frequently ushering in the disease, they sometimes cut it short, and prevent its further progress. From the small experience which we have had on this branch of our subject, we are disposed to think that their efficacy in this respect is much increased by being promptly followed by active stimulating sudorifics, perspiration being at the same time promoted by copious warm dilution, and by external heat. The determination to the surface, which is one of the most beneficial effects of emetics, is thus increased, and sustained for a much longer time, and the chain of morbid action is more certainly broken. Not professing, however, to theorize on the subject, such has been the inference from our own partial and limited observation. We have notes of three or four cases in the same family, in which all the symptoms of the forming stage of typhus were strongly marked, and slight pulmonic symptoms existed:—all of which were immediately arrested by this plan of treatment. The method is, we believe, supported by some authority, but as a very acute form of typhoid pleurisy was at the same time prevailing, our practice was drawn from their analogy

\* Professor Smith, of Yale college thinks purgatives injurious—while doctor Armstrong and others, after the example of Hamilton, recommend them to great extent.

to the prevalent disease. The sweating was followed by free evacuation from cathartic medicine, blisters were applied in one or two of the cases; and thus the disease terminated without developement of the pulmonary affection.

Where we have judged the strength sufficient, we have very commonly used, *in the beginning*, even of typhoid diseases, a combination of calomel and tart. antimony, in the proportion of ten or twelve grains of the former to two or three of the latter. Where this combination can be borne, it perhaps, affords all the chance of suddenly cutting off the disease, which can be afforded by these powerful agents. Where the disease has lasted many days, or where the patient is old or infirm, we should regard it as inadmissible.

When the forming stage of typhus is past, and the stage of excitement has commenced, we have not been in the habit of giving emetics, nor would we recommend them, unless their use be indicated by some particular symptom. Thus if there should be much nausea, or any other symptoms indicating an accumulation of morbid matter in the stomach, emetics might be necessary. An *obstinately* dry state of the skin might also present an indication for their use.

Although we resort to emetics whenever particular indications exist, and the strength is sufficient to bear them, yet we by no means regard them as remedies of universal utility in typhus, nor do we think they should be lightly resorted to in ordinary practice. Indeed we can say with entire confidence, that the fevers of that district of country in which we practice, which is remarkably exempt from miasma, seldom require the use of emetics. This remark is more particularly applicable to those fevers which prevail in winter.

We have heard of the administration of emetics for the purpose of rousing the system to more energetic action, but although this object may perhaps be accomplished by them in some diseases, we consider them in general as wholly inadmissible in the advanced stage of typhus, for this or any other purpose. Above all, tartar emetic should be used with caution in the early periods, and utterly rejected in the later stages, of every typhoid disease. If any young practitioner should neglect the observance of this rule, he will be sure to learn its importance by melancholy experience.

#### 4. *Diaphoretics and Refrigerants.*

These remedies enter into the cure of typhus only according to the indications which regulate their use in all other diseases. Perhaps the only exception is that which we have specified

above, when treating of emetics. Calomel and opium, Dover's powder, camphor, *sp. nitri dulcis*, and *serpentaria*, combined, and varied according to the stage of the disease, and the condition of the patient are perhaps the best diaphoretics.

In the stage of excitement, saline draught, nitrate of potash, &c., and various combinations of these, may become useful remedies. When the typhoid appearances have commenced, antimonials should be used with caution. Doctor Brown, in the essay above referred to, bestows very high encomiums on the use of carbonate of potash; in doses of "from 3 to 5 grs. every one or two hours throughout the day." He directs it to be dissolved in water, and sugar to be added to conceal its taste. Of this remedy we have no experience in typhus, or typhoid diseases.

5. *Blisters and External Irritation generally.*—That when the general excitement is reduced to a certain point, these remedies possess a febrifuge power, is an opinion which we believe to be entertained by the great body of the profession. With this general view, when such a condition exists, they are used in every form of fever, even though no local affection may exist. We confess that we have seen no reason to think that they materially affect the duration of fever. They may diminish its severity, but of this effect, the simultaneous use of other remedies renders it difficult to judge. It can scarcely be doubted, however, that they tend to translate morbid excitement, and irritation from the interior to the surface. The effect of blisters, and other external stimulants, in arresting the paroxysm of intermittents, is well known. A similar febrifuge power is no doubt exerted in fevers of continued form, though it is not sufficient suddenly to cut short their progress.

In every stage of typhus, and in all typhoid diseases, blistering is by far the most important means of counteracting local inflammation. The effect of this remedy in inflammations occurring in the typhoid state, is as striking as that of venesection in those of the sthenic diathesis. Though worthy of the highest confidence, they are not, however, to exclude the use of other remedies.

As a means of exciting the system from the torpor which prevails in the advanced stages of typhus, and of sustaining its languid energies, blistering stands high in the estimation of medical men. The legs, wrist, neck, and sometimes the head, are selected as the parts to which their application is most beneficial. It is needless to say that when designed to remove

local disease, they should be applied over the part affected. For general purposes they should be applied in succession, so as to keep up a constant irritation throughout the stage of collapse.

In cases of extreme prostration, or where the skin is cold, or destitute of sensibility sufficient to feel the action of cantharides, sinapisms are often used with the happiest effects. In certain conditions where none of these applications can be brought to act, remedies still more powerful, as urtication, or the application of rags dipped in boiling water, are sometimes resorted to. Of these we have no experience.

We well remember a remarkable case which occurred in our practice about two years and a half ago, in which common blistering plaster, cantharides boiled in turpentine, and sinapisms were used constantly *for a whole week*, without the smallest effect. The patient, however, recovered from this state of prostration, while taking ether and hartshorn, and local stimulants *then* took effect. During this time the muscular strength was very considerable, but the pulse feeble and innumerable rapid, and the skin cold. His recovery from this condition was complete, but he afterwards died of sudden and profuse pulmonary hemorrhage, apparently brought on by premature exercise.

It is a subject of curious remark, that doctor Thomas, in his work on Practice, entirely reprobates the use of blisters in typhus, and cites doctor Darwin as authority in confirmation of his opinion. They have now, we believe, the unanimous sanction of the profession.

6. *Mercury.* Except as a cathartic and laxative as above mentioned, we have not been in the habit of using mercury in typhus. Whether promptly affecting the gums during the stage of excitement, would exert any salutary control over the succeeding stages, is a question which our experience does not enable us confidently to decide. Our opinion is in favour of the negative, and is, we think, in coincidence with that of the greater number of experienced physicians. It is mentioned by doctor Cooke, in his "Essay on Epidemic Fevers" before referred to, that affection of the gums by mercury in cases of protracted fever, far from arresting or mitigating them, only presents a serious complication; and that "sad experience had convinced him that his patients might die while under the influence of mercury."

Our views correspond with those of doctor Cooke, and we also have seen patients laboring under the typhoid forms of fever die in a similar condition. We are therefore decidedly op-

posed to its use as a *counter irritant*\* in typhoid diseases. To its use in such cases as a means of combatting local inflammation we are equally averse, except in the earliest stages, and under peculiar circumstances. The antiphlogistic powers of mercury seem not to be exerted in inflammations originally typhoid, but only in that state of sthenic inflammation where depletion has been carried as far as the strength will allow, and yet the local disease does not appear to yield. No practitioner can have failed to remark, that an equal degree of debility is by no means so dangerous in diseases originally inflammatory, as in those which have from the first a typhoid tendency. Hence the operation of mercury is better borne in the former, and while its administration is exempt from danger, it is productive of decisive effects in repressing inflammation. Except by redressing functional disorder of the digestive organs, we doubt whether mercury possesses any power of counteracting inflammations of the typhoid character. Doctor Brown, who has adopted the arrangement of doctor Armstrong, in treating of typhus, pays his calomel and opium practice an appropriate compliment in the following words: "Further experience may induce me to VENTURE MORE BOLDLY on this practice."† The extensive use of calomel and opium as advised by doctor Armstrong, we have no doubt was very judiciously adopted in many of his cases, but those cases were any thing but typhus fever. In cases where a tumultuous excitement arises in typhoid fevers, from sudden inflammation or other causes, full doses of opium with moderate quantities of calomel may be useful in allaying the irritation.

We beg leave to say, however, that our experience in the use of mercury in typhus has been too limited to justify any positive assertion of its general inutility. Pursuing a plan which is almost uniformly followed by a fortunate event, we do not feel ourselves justified in departing from it to make experiments on the merits of contested modes of treatment.

The use of mercury as a stimulant in states of real typhous debility, we consider irrational and utterly inadmissible. Its tendency to increase all the secretions, to produce uncontrollable diarrhea, and indeed directly to increase the debility, should preclude its use in all such cases for any purpose whatever.

7. *Stimulants and tonics.* We are clearly of opinion that this class of medicinal agents is by far too lightly estimated by a large

\* By this term we mean a remedy capable of exciting a morbid action inconsistent with the previous disease. Of course we do not speak of local counter irritation.

† By this term we merely mean, possessing the power of counteracting inflammation. In this sense blisters would also be antiphlogistica.

‡ Md. Recorder, vol. 14, p. 35.

proportion of the writers of this age. In forsaking the limited definition and cautious treatment applied to typhus by the celebrated Cullen, the fashionable writers of the present day have gone far into the opposite extreme. Doctor Armstrong, in particular, who has assumed so disastrous a control over the opinions of the profession in reference to typhus, seems to think that when bleeding, purging, and calomel and opium, can no longer be borne,\* "the time for demonstrating the decided efficacy of medicine is unfortunately past." He intimates that these remedies are generally applicable to the disease throughout its course, but this is far from being the case. Professor Potter, in a note to this passage, very justly condemns the practice which it inculcates, and assigns to the use of stimulants their proper importance. "It cannot be denied that in those cases that assume a low typhous character from the beginning, the diffusible and durable stimuli are not only admissible, but often indispensable." Cases of this kind have been seen by every practitioner of any experience; and not only so, but a similar condition is liable to occur in the latter periods of a great proportion of typhus cases, which in that event will require the same treatment thus recommended in cases of original prostration.

It has been supposed by many physicians, among whom are Darwin, Thomas, and Armstrong, with a host of others, including perhaps all who have speculated much on excitability and excitement, or other similar subjects of modern speculation; that as the debility increases, stimulus must be sparingly used, lest we exhaust the remaining excitability. Of this theoretical opinion we have only to say that it is at variance with all experience, and with the general sense of the profession. Laying aside all speculation, the fact is, that in the debility and torpor of typhus, the relation between stimuli, and the powers of life is so changed, that a much larger quantity of the former is required to produce any given effect. Thus a quantity of alcohol, which in a state of health, would produce total drunkenness, is scarcely perceptible in its effects on a patient laboring under typhus. As the debility and torpor advance, an increase of stimulus and nutriment is demanded, and the patient frequently cannot be saved but by the assiduous application of exciting and supporting agents. Such indeed, we believe to be the general practice even among those who theorize in an opposite way.

A just distinction, we apprehend, may however, be taken between that kind of debility attended by torpor, and that which is attended by increase irritation and excitement. Perhaps the most striking characteristics of the latter are restlessness and

\* Armstrong on typhus fever, Philad. Edit. 1822, p. 107.

jactitation, with rapid, but extremely compressible pulse, and *generally*, a hurried respiration. This is in general the nature of the secondary excitement which sometimes occurs in the latter stages of disease, and is induced by some new and accidental cause of irritation. In this condition opium is perhaps the principal remedy, and we doubt the efficacy of other stimulants. It is very common, however, to resort to them in all cases of extreme debility, from hemorrhage, fever, or whatever other cause. We are disposed to think, that besides opium, assiduous nutriment, and external irritation by sinapisms, &c. with moderate doses of internal stimulants, are the best means which we can adopt in this species of debility. They must however, be subject to great variety of application, as these conditions of debility, whether accompanied by torpor or increased irritability, are liable to be indefinitely varied.

It appears to be the opinion of many, that stimulants are inadmissible while the tongue and skin remain dry, and the latter hot. This we consider entirely erroneous, and regard the pulse as the great criterion by which we are to judge. If the latter be small and feeble, and the debility great, no condition of the skin or tongue should deter us from the assiduous use of stimulants. Under such circumstances, they are at least the principal means of supporting the system until the occurrences a salutary crisis.

The choice of stimulants, and the mode of their administration, cannot fail to be subjects of perplexity to the inexperienced practitioner; and indeed, the selection has not been determined with sufficient precision by the experienced members of the profession. If it be said, that our choice is to be governed by circumstance, still the question recurs, what are the circumstances which shall determine the selection? We know some practitioners who seldom use any other form of alcohol, but wine, while others as exclusively adopt the use of brandy. As a general rule, we prefer wine, wherever the system evinces a proper susceptibility of its action; but where torpor of the stomach, or want of excitability in the nervous system, presents obstacles to its effect, we should prefer the use of brandy. In cases of extreme torpor, capsicum, and other irritants of a similar character may have a beneficial agency. One pint of French brandy is the quantity, which in common cases of great typhus debility, we would prescribe in twenty-four hours. A much smaller quantity may suffice where the debility is not so great, or the system more susceptible of its influence. Where this quantity fails to produce the desired effect, it may also be very considerably increased, regulating the quantity by the effect produced. From a pint, to a pint and a half of wine may be the quantity adapted to ordinary typhus cases, but may be varied on similar principles.



On the subject of the other stimulants used in typhus, it is unnecessary for us to enlarge. Ammonia, camphor, and serpentaria, with wine, or brandy, and variously combined and alternated constitute the routine usually employed. Ammonia is said to be admissible earlier than any other diffusible stimulant, on account of its tendency to act upon the skin. Whether camphor be a stimulant, is indeed a contested point. It is however, generally given with stimulants, and we are disposed to regard it as such, though its powers may be exerted chiefly on the stomach and nervous system, without *directly* augmenting the force of the circulation. It has a considerable diaphoretic effect, particularly when used in combination with certain other articles. Ether is also a valuable remedy.

As soon as convalescence occurs, the most decisive indication of which will be afforded by the tongue becoming clean and moist, the stimulants should be gradually withdrawn, and the quantity of nutriment diminished. Whatever may have been the diet before, it should now be made light, and mild tonics, such as biters and elixir of vitriol, should be substituted for the stimulants before used. Particular attention should at the same time be paid to the state of the bowels, their action being only gradually restored, and a tendency to constipation in general existing, throughout convalescence. So far as our observation goes, the state of convalescence, even from states of the greatest debility, appears to be peculiarly liable to local determination of an inflammatory character.

Wherever the disease has originated in intermittent or remittent fevers, or in seasons when such forms of fever are prevalent, bark or sulphate of quinine should always be a principal ingredient in the tonic course pursued during convalescence; and indeed, should be used at intervals of a few days, until health be re-established, though tonics might not otherwise have been thought necessary. If this were neglected an intermittent paroxysm might occur, which under such circumstances would be a dangerous event. Such cases we have seen, and their occurrence will not appear surprising, when we remember that in seasons where the various forms of fever are prevalent, intermittents and remittents are liable to alternate in various ways with continued fevers, whether inflammatory or typhoid.

Having treated at some length, of each class of remedies used in the cure of typhus, we shall proceed to notice some other means which do not fall within any of those classes.

In the use of cold water externally, we have no experience, except from having applied it by sponging. We have never tried it as a means of cutting short the course of typhus, but have always been in the habit, whenever the heat was considerable of

keeping constantly moistened with vinegar and water, the neck and breast, the arms, and other parts of the surface to which the application could be made without stripping or exposing the patient. The evaporation thus produced assists powerfully in reducing the morbid heat.

Much difference of opinion has existed among the profession in regard to the utility of frequently administering nutriment in the typhus state of fever. By some it has been supposed, that the powers of digestion are suspended in fever, and this would imply that the introduction of nutritious substances into the stomach is at least useless. We have no doubt, that this is an error calculated to produce the most pernicious effects on practice. Speculative authority is however of no value, where facts are at hand, and the experience of doctor Colhoun, former editor of the Medical Recorder,\* appears to be decisive. While attending the Pennsylvania Hospital, as one of its physicians, he withdrew in succession all the stimulants used in typhus, and substituted a plan of treatment by nourishment alone. We quote that portion of his observations which contains a statement of the facts.

"In the typhus states of the system, which occur after the continuance of the fevers of autumn, the wine usually subscribed was omitted; in the next case the volatile alkali; in the next, opium, finding that the cases recovered, at length all medicines were omitted, and the patients were treated by diet alone, and with the most complete success. Sago, tapioca; barley water, were given in the quantity of a gill and more every two hours, which was vigorously persevered in night and day, and it was found that the stomach, so far from being unable to digest these substances; on the contrary, after rejecting the first few doses, digested them perfectly; the stomach became settled; the bowels were moved; the dejections, from being brown or black, gradually became natural; the delirium disappeared, and the patients were soon perfectly well." He concludes by saying, "this plan has been tried by a practitioner of high standing in Baltimore, and with the most complete success."

The remarks of doctor Colhoun, indeed, seem to imply that he considers treatment *by diet alone*, at least as successful in typhus as any other mode of management. Whatever may be the comparative importance of stimuli and nutriment, the frequent administration of the latter is very generally resorted to, in all cases of extreme debility. The experiments of this learned physician would seem to shew that medical interference is of little consequence, except when required for the fulfilment of some evident and important indication. The profession would

\* Vol. 7. p. 371—2.

be much benefitted by a series of observations on the comparative results of cases left to nature, or subjected to none but the simplest management, and of others treated according to the ordinary methods. We do not, however, feel ourselves justified in omitting the established modes of treatment in any case of dangerous disease, nor would public opinion sanction such a course. The *minimum* of medical interference required in the treatment of diseases of moderate or low excitement, is a subject much in need of elucidation.

The success of a plan similar to that of doctor Colhoun is also attested by several English writers\* of eminence. It seems to be settled by these observations, that there are many cases of typhoid fever in which, after the first evacuations, no medicines whatever are necessary, except such as may be required to secure the regular expulsion of the contents of the intestines. We have, however, as little doubt that there are also numerous cases in which the diligent use of stimuli is indispensable to the support of life. The discrimination of these cases can be but imperfectly taught by general rules, and must ever constitute one of the most arduous and responsible duties of the physician.

We have thus given a faithful, but very imperfect sketch of our views in regard to the treatment of the typhous forms of fever. As we remarked in the outset, there is no subject in reference to which we feel more forcibly the imperfections of medical language. If the morbid conditions intended to be designated by each individual through the words which he adopts, were distinctly comprehended by those to whom they are thus described, we are convinced that more than half the disputes existing among the profession would immediately be adjusted. The necessary evils arising from this source have been immensely aggravated in the present day, by the arbitrary changes introduced in the meaning of words, whose signification was before in some degree settled. To some extent, however, they are absolutely unavoidable, and we cannot flatter ourselves that in the present essay we have always succeeded in making ourselves understood. Far from asserting any claim to discovery, we shall be happy to find every opinion herein advanced, corroborated by previous authority. Whether the treatment recommended be beneficial, has been considered as vastly more important, than whether it be new.

\* On the treatment of infections of typhoid fever—by Jas. Parkinson and J. W. K. Parkinson, Esqrs. memb. Royal Coll. Surgeons. Reviewed Med. Rec. vol. 7 p. 630.

We may conclude, not only in the words, but in the spirit of the Roman poet.

——— Si quid novisti rectius istis  
Candidus, imperti; si non, his utere mecum.

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## APPENDIX.

WE feel it necessary to subjoin a few remarks respecting our opinions of contagion.

We have no doubt that the secretion from the skin of persons not laboring under any contagious disease may, when confined in close apartments, become the cause of disease in others. Experience has proved the disease thus produced to be a form of fever.

We think, however, that in such cases, the secreted matter does not possess such a power when first thrown off, but acquires it by subsequent decomposition. This is to be inferred from the well known and evident fact, that if a number of persons in health be confined in a close apartment, disease will arise among them, with the same certainty as if some of them had been before laboring under fever.

The cases at the old Bailey, and others of a similar kind, quoted as undeniable examples of contagion, are explainable on this principle. The noxious matter resulting from the decomposition of the secretion from the skin was adhering to the clothing of the prisoners, and communicated disease to the bystanders.

To speak of diseases as *contagious in foul air*, we think entirely unphilosophical. It is overlooking an evident and sufficient cause of fever, in search of a latent and mysterious principle. The difference between our opinion and that of doctor Horack and others may rest somewhat on the different meanings which we attach to the word contagion. Several clear and important distinctions seem however to exist between this mode of contracting fever, and the manner in which diseases, truly contagious, are communicated.

1. In the latter, the secreted matter is assimilated *during secretion*, and capable of producing the disease when first thrown off—in fevers it is not capable of producing disease till after decomposition.

2. Fevers may be produced by decomposition of the fluid, secreted by the skin of persons in health. The prisoners brought out at the old Bailey were not laboring under any disease. How can a fever conveyed to another by a person in health, and who has had no communication with diseased persons, be said to have been communicated by contagion?

Such a use of that word we regard as a gross abuse, and misapplication of it, and as tending to mislead mankind in their opinions on this most important subject. It leads them to avoid the *persons* of the sick, instead of guarding against that contamination of the atmosphere which is the true source of epidemic fevers.

Perhaps our admission of human effluvia as a cause of fever, may seem inconsistent with the opinion formerly expressed, that malaria is the only remote cause. We think it highly probable that the decomposition in the former case, results in the production of the same morbid principle, under certain modifications. This is, however, a subject which will perhaps forever elude successful inquiry, and on which we can form our judgment from analogy.

We must confess that we have no experience in fevers thus generated, and cannot speak with a degree of confidence, such as would be warranted by actual observation.

We are, however, firm believers in the unity of *fevers*, after a due consideration of the arguments against our opinion. Our limits will not, however, allow a discussion of this subject, nor have we at present access to the works in which the contrary opinion is maintained. We think that identity of the remote cause, and convertibility into each other, should be taken as proofs that two cases of fever exhibiting different trains of phenomena, are only grades of the same disease. Now taking the yellow fever, and the common remittent as our examples, we consider the facts recorded in reference to those forms of fever as conclusive in favor of our opinion.

Fevers of a milder form have perhaps uniformly prevailed before the occurrence of the yellow fever, and the time at which they have acquired a degree of malignancy sufficient to justify this appellation, is a never failing source of dispute among physicians.\* Malignant fevers disappear in a similar way, and are followed by milder forms of miasmatic disease.† It is a plain

\* For proof of these facts, see Rush on the yellow fever of 1793—1794, and the authorities by him quoted. It would be superfluous to seek other authority for facts so well known.

† This happens in the same persons. See Rush's *Inq. &c.* 5th Edit. Philad. 1818, p. 150, of vol. 1.

inference that common remittent is produced by the same causes which give rise to the yellow fever, and passes into the malignant form by such imperceptible gradations, that the line between them is not susceptible of ascertainment.

Thus they are convertible into each other. That the extremes are not liable to sudden conversion, is a fact which cannot justify any inference inconsistent with this position. It is not to be expected, nor is it consistent with the nature of things, that the same case of fever can be suddenly changed from a mild remittent to the yellow fever, for it is impossible that the different degrees of the cause necessary for the production of these different forms of fever should be simultaneously applied.

We think that it results as a necessary inference from the facts referred to, that common remittent and yellow fever, are produced by the same cause, and are convertible into each other, or in other words, pass into each other by imperceptible gradations. The same principles would, by a similar inquiry, be found true in regard to all the other forms of fever.\*

Whether these points of coincidence do in fact determine the identity of diseases, is a question which cannot be profitably disputed. It is vain to argue about definitions—they must be settled before there can be any solid ground for argument. We believe, however, that these are generally regarded as the criteria, by which the identity or specific difference of morbid affections is to be determined.

As we consider the above observations sufficient to establish the identity of the forms of fever referred to, and as similar facts might be adduced to show the identity of all the other forms; we think it unnecessary to notice minor objections. We will, however, consider one or two of them.—We are asked, does a disease ever seize a patient in its maximum grade? We answer, yes, whenever the cause is applied in its maximum state of intensity or concentration. *Effects* in this as in all other cases, must ever hold a due proportion to their *causes*.

We are told that frost arrests yellow fever, but not the milder forms.† This is true: for it mitigates the cause to that degree of intensity which is only sufficient for the production of mitigated disease. But there are no doubt many cases in which the cause has acted *before* the occurrence of frost, and the disease has been developed *afterwards*. In his account of the yellow fever, of 1793, doctor Rush states the following fact. "In the histories of the disease which have been preserved in this country, it

\* That typhus and the other forms of miasmatic fever are reciprocally convertible, is acknowledged by Armstrong, in a late work.—See his works, and Medical Recorder, vol. 5, p. 621, &c.

† Philadelphia Medical Recorder, vol. 5, p. 518.

has six times appeared about the first or middle of August, and declined or ceased about the middle of October." Now frost almost always occurs considerably before this latter period, and the interval would leave time for the occurrence of yellow fever in many cases in which the predisposition to this form of fever had been before produced.

It is well known that great numbers labor under the predisposition to malignant fever, in whom the disease is never developed. We have no doubt that this *miasmatic impression* wears off gradually, leaving sometimes a degree of impression which may give rise to milder forms of disease.

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ART. III. *On the Curative Effects of Loss of Blood.* By MARSHALL HALL, M.D. &c. &c.

[At page 470, of the first volume of this Journal, we have noticed a review, by the editor of the London Medico-chirurgical review, of the works of doctors Hall, and Gooch, and at page 508, we have given our opinion upon some of the observations and opinions of those authors; to which we would respectfully refer our readers. The review having been continued on the work of doctor Hall, in the London Review, we have thought proper to offer it also to our readers, since in this, as in the former case, we see much to commend; and observe some items to which we must object.

We need offer no apology to our readers, for transcribing the spirited and able commentaries of doctor Johnson, in doing this we shall always offer them sound food; and if we now and then observe a dish which we do not like, we shall not forbear to give notice of our disrelish.

We shall designate the language of doctor Hall, by embracing it in quotation marks—that of the review we shall print without—our own shall be enclosed with brackets.]

THE talented author of the work before us has so mingled or mystified, we had almost said, original matters with the substance of preceding publications, that it would require much more time than we are able to spare, to separate the new from the old. Let us take the first passage of the introduction to this division of the volume under review, and our readers will probably be quite familiar with the words.

"It is one of the most remarkable facts in physic, that if several patients of similar strength and constitution, but affected by dissimilar diseases, be respectively placed in the erect position, and bled to deliquium, they will be found to have lost vary various

quantities of blood. I have known a patient not apparently very feeble, faint on losing four ounces of blood; and I have known patients bear to lose fifty, sixty, and even seventy ounces of blood without syncope."

Our readers will remember that the foregoing passage forms part of an *avant-courier*, which Dr. H. sent forth some time ago,\* with the view of collecting information on the effects of bloodletting. A long extract from a paper published by Mr. Heming in the *Medical Gazette*, concludes the first section of this chapter.

Dr. Hall then proceeds to particularize certain specific diseases in their relation to loss of blood, beginning very naturally with fever.

#### I. FEVER.

The different forms and complications of this and of inflammation, are of very frequent occurrence; and, in their intimate nature and relation to bloodletting, "pure fever and pure inflammation are widely different."

"There have been long disputes, indeed, whether fever ever be perfectly pure, that is, independent of inflammation. In a practical point of view, I think it the safest plan to regard fever as occasionally truly idiopathic, but as extremely liable to be conjoined with inflammation.

Whoever is imbued with an accurate knowledge of physiology will, I think, perceive in the phenomena of fever, much that is to be distinctly referred to the state of the nervous system; the alternate chills and heat, the tendency to vertigo, the muscular tremors, the affection of the various secretions, are plainly of this character. With this, the vascular system soon participates. They form a whole which suffers together.

Fever seems to differ from the inflammation in being an affection of the whole nervous and vascular system; in inflammation there is an affection of these systems in one part or organ.

There is another difference between these two diseases: fever appears to consist in an affection of the nervous system, and of the heart and larger arteries, the capillary vessels being only affected as an extension of this morbid state. In inflammation there is, according to the experiments of doctor Wilson Philip, and doctor Hastings, a primary affection of the capillary vessels, consisting in enlargement of their diameter and a slower movement of more numerous globules of the blood. A consequence which flows from this view of the subject is, that to subdue momentarily the state of fever, we have only to subdue the augmented action of the heart and larger arteries; but as the capillary circula-

\* See No. XXIII. of this Journal, page 40, et seq.



tion is less immediately under the influence of the heart; the action of the former may be subdued, whilst a morbid state of the latter may be continued with comparatively little change.

It is upon this principle, I believe, that a fact is to be explained which will be frequently adverted to in this work, that syncope is more readily produced by the abstraction of blood, in pure fever, and in other diseases consisting alike in the state of the heart and larger arteries, than in pure inflammation, consisting in a peculiar condition of the capillary vessels, more permanent and less under the influence of the general circulation.

In the former case, syncope is the simple effect of depriving the heart and arteries of their accustomed stimulus, and this probably under circumstances of augmented susceptibility of the nervous system to impressions of this kind; in the latter, although blood may be taken, and the action of the heart and arteries be thus subdued, yet from a less degree of susceptibility of the nervous system, and from the unsubdued morbid action of the capillaries, acting as it were as a permanent stimulus to the general system, syncope is not so soon induced by the abstraction of blood. But whatever the explanation of this fact may be, the fact itself is, I think, established upon the sure ground of multiplied experiment."

There are three circumstances, doctor H. observes, in fever, which should lead to the use of the lancet—excessive reaction of the vascular system—much excitement of the nervous system; local inflammation. On each of these cases our author expends a few remarks. In excessive vascular reaction, he observes, bleeding is of essential service, especially when employed early—the limit, beyond which it would be dangerous to go, being clearly marked out by the degree of susceptibility to the effects of loss of blood, denoted by the tendency to syncope on abstracting blood pretty freely in the erect posture.

"The same observation may be made in regard to great nervous excitement denoted by delirium. To abstract a moderate quantity of blood does great good. But to bleed too freely is dangerously to depress the powers of life. In this case, as in the last, the patient may safely be placed in the erect posture, and bled to incipient syncope, if it be a first bloodletting and early in the disease.

But the most marked difference in regard to the powers of supporting the loss of blood, is superinduced by the addition of a local inflammatory affection to the original disease. The patient immediately becomes less prone to faint on being bled. It will be obvious how important it would be to establish this point accurately by an ample collection of facts; and thus to trace it in its reference to practice. It appears to me, from what I have

hitherto ascertained, that there is, in every instance, a strict alliance between the degree of tolerance of loss of blood and the exigencies of the cure."

## II. Inflammation.

Doctor Hall's remarks on this point are very brief. He would observe that inflammation is not necessarily ushered in by rigor, or attended by heat of skin, except in very severe cases. In the slighter instances he thinks the rigor generally depends upon a superadded cause, existing in the state of the bowels—while the heat depends upon the cause, or upon the use of remedies. He has also observed that the pulse, in pure inflammation, is very little accelerated at first; but is so in the severest cases. In pure inflammation, except of the encephalon itself, the head (he observes) is frequently little affected, there being neither headach nor vertigo—though these symptoms eventually come on, together with delirium, "as the result of depletion and exhaustion."

"But the remark of greatest moment which I would make in this place, is, that pure inflammation induces a state of the system which protects it from the influence and effects of loss of blood. A patient under the influence of pure inflammation, will bear to lose a far greater quantity of blood without experiencing syncope, than the same person in health. This fact is of the utmost interest and importance in a practical point of view."

[At page 508 of our first volume, we have stated as our opinion, that among the positions which we might venture to lay down as admitting of no doubt, was this—"the measure of muscular strength, obtained by setting your patient erect, is no measure of the amount of inflammation present, whether you detract blood or not."

We are aware that the position advanced by doctor Hall in the foregoing paragraph is generally true, but there are some very important exceptions. We have again and again seen cases where it was with the greatest difficulty that patients could be bled to the amount of a few ounces without complete syncope; nay, we have seen physicians deterred from the use of this remedy, under such circumstances; and, yet, it was only necessary to repeat the bleedings a few times with care, to enable the patient to bear with ease; yes, to feel benefitted immediately by each repetition of the bleeding for several times. We shall presently notice a case of doctor Hall's alike clearly manifesting the candor of the author, and the erroneous practice which was adopted.]

Inflammation, he considers, as a sort of concentrated stimulus, (says doctor Johnson, (speaking of doctor Hall,) existing and maintaining the powers of the system. We should rather say, that is an irritation producing violent and irregular action in the system.

[Doctor Hall has said that inflammation is a "sort of concentrated stimulus, exciting and maintaining the powers of the system." To this the reviewer objects, and says that, "we should rather say that it is irritation producing violent and irregular action in the system;" and assigns as a reason for this opinion that, while the action of the vascular apparatus is excited in inflammation, "the functions of various organs, especially the digestive, are almost annulled." Irritation is here made the agent by which the system is thrown into irregular action. What can be meant by the term irritation? Is it not itself an irregular action?

We are reminded here of the theory of doctor Brown with doctor Rush's modifications—we allude particularly to their views of excitability and excitement. What doctor Johnson, in the review, calls an irregular action, doctor Rush would view as a disproportion of excitement. That there is, occasionally, unequal excitement, is shown by doctor Johnson, when he says, "the functions of various organs, especially the digestive, are almost annulled"—and it is further supported by the assertion, "that the *vascular apparatus* is excited in inflammation. Here is undue excitement expressed in other terms.

To our apprehension the notion of a state of excitability, and of excitement, as projected by doctor Brown, is one of the most beautiful, convenient, and important views, ever created in the mind of the medical philosopher.

The application of these states of the human system, as connected with its physiology and pathology, by doctor Rush, is adequate to the unfolding, and arranging all the vital phenomena, so far as they are yet known; and never did we see a more happy illustration of what we here assert, than in the paragraph from the pen of the two great men who have been concerned in making it. Thus doctor Hall sees a "concentrated stimulus, existing and maintaining the powers of the system." How vague! How erroneous! What system does this author mean? Surely not the *causative*; and yet this is clearly the import of his language. Is not the system prostrated, even to the amount, in many cases, of inability to assume even a sitting posture? It must therefore be limited, and limited agreeably to the views of doctor Rush, to the system of blood-vessels—here, then, is, according to the last named author, a case of unequal excitement.

On the other hand, doctor Johnson adopts the idea of doctor Rush, of vascular excitement, and the defect of excitement, in the digestive organs, which he expresses by saying, that "the functions of these organs are almost annulled." This, is not only clearly comprehensible, but so palpably manifest, as to the condition of things present, that however little we may know

of the secret operations within, the condition itself cannot be disputed. But how unsatisfactory to refer all this to an "irritation;" "a creature of fancy. Where is the irritation? is it in the "excited" "vascular apparatus?" or is it in the "organs," whose "functions" are "annulled?" Try it as you will, it is unequal excitement; and no epithet can improve our perception of the phenomena present.

It is probable that doctor Hall means merely, that the "system" is strengthened in its resources in inflammation comparatively; that is, a case of pure inflammation, is not attended with that degree of debility which would attend a case of severe excitement of the vascular system, by idiopathic fever. This is most usually the case—but we may inquire, why is it so? We say it is not because there are any increased resources, but simply, because a case of pure inflammation is a milder state of disease than that of pure fever.

It is not our intention to take up the subject of inflammation, at this time, we cannot, therefore, enter into explanations of our views, of the peculiarities which attend the different states of the body, in cases of inflammation, and in cases of pure fever—we shall merely make a remark or two on this point.

It is an acknowledged fact that, we frequently see persons affected with inflammatory diseases, who can bear a greater loss of blood than the same person in a state of health; but this is not unfrequently the case in idiopathic fever—so that, after all, the question is, what is the relative proportion of cases, where this state of things exists in fever; and inflammatory affections. There may also be a doubt as to the repetition which can be borne in each; but, the main fact is well established. Doctor Hall then has nothing to claim on this score. This author seems particularly anxious to establish the belief that, we are to bleed in inflammatory affections in the erect position, with a view to produce syncope; and by this expedient increase the utility of the remedy, and, upon the whole, to lessen the amount of blood lost, in any given number of cases—we shall endeavor to show presently that he carries this practice to too great a length. And we must not lose sight of the fact, in pure inflammatory affections, attended by concentrated stimulus, exciting and maintaining the powers of the system, that this maintenance is dependent upon an accumulation of excitement in the blood-vessels, at the expense of other parts; so that the more direct tendency of this remedy is to prostrate the whole machine, notwithstanding that for a time, or to a certain extent, the equalization of excitement, which is produced by abstracting from the blood-vessels in a state of plus excitement, while the other

its advantages, and may warrantably be employed in desperate cases; but the proposal for taking away twice thirty-nine ounces, in one day, in a weakly woman, on account of a pain in her side, is any thing rather than a judicious rule of practice—this too with the knowledge, clearly before us, that, from time immemorial, those cases of “pure inflammation” are the least dangerous of any class of diseases, provided bleeding be early employed; and repeated at proper intervals, so long as the appearance of the blood, and the continuance of pain, shall indicate its propriety—nevertheless, the views and practice of doctor Hall, are calculated to sustain the depleting plan, by general bleeding, instead of the tedious and painful practice of leeching.]

In another case the most active bloodletting had been employed to subdue peritonitis; but an abscess formed and burst into the bowels. At this moment the most acute symptoms of re-action from loss of blood were set up, and the patient suffered from the most violent throbbing pain of the head, intolerance of sound, palpitation, &c.

“In third case detailed to me by doctor Abercrombie, a similar tumor formed on the right side of the pelvis, the inflammation of this tumor greatly subsided by the use of the ordinary remedies; but the patient became affected with delirium. Such cases having been fatal under other treatment, doctor Abercrombie prescribed a glass of wine to be given every hour. After the fourth glass the patient was found composed. The tumor eventually suppurated externally, and the patient did well.”

Doctor Hall does not recommend bloodletting to be carried to actual syncope, “but only to the very first signs of approaching syncope, which is, in fact, to be prevented by immediately laying the patient in the recumbent position.” He thinks that, in most of the cases in which much reaction has followed syncope, there has either been no inflammation, or it was subdued completely by the bleeding.

“But there is another remark of the utmost moment, which I must make, though cursorily, in this place, as it will require a more particular notice hereafter. It is, that at the very moment the protective influence of inflammation is withdrawn, further bloodletting is in the highest degree dangerous. I have known several instances of the fatal issue of bloodletting when this measure has been instituted as a preventive against the recurrence of symptoms of inflammation which had been subdued by previous bloodlettings.

If I were to venture to state the average quantities of blood which would flow in the different cases and forms of inflammation, I should mention forty ounces for arachnitis, from thirty to thirty-five for pleuritis or pneumonia; and fifteen for bronchitis.

This simple statement cannot fail to strike the medical reader. It is impossible to foresee at once all the advantages which must flow in practice, from these important differences in the powers or susceptibilities of the system in regard to bloodletting in these different diseases.

I think it important to mention, in a very especial manner, that in some forms of acute anasarca, there is great tolerance of loss of blood."

### III. Irritation.

Doctor H. next proceeds to notice this morbid affection, of frequent occurrence, "and with which the profession generally appear to me still to be totally unacquainted." This statement, doctor H. thinks, will not be deemed too strong, if he is enabled to show that "there is a series of cases, not generally distinguished from certain inflammation, and yet very different in their nature, and especially in their reference to the effects of loss of blood." Granting the existence of this series of cases to the fullest extent, it would not prove that the profession generally is "totally unacquainted" with the subject of irritation. We are ready to grant, however, that irritation is very frequently mistaken for inflammation by the routine practitioner, and that much mischief is daily done by this mistake. But, in truth, it is not always very easy, even for the most skilful and attentive practitioner to discriminate in these cases, and where the practitioner is in doubt, he naturally concludes that it is safest to err on the safe side, and run the risk of treating irritation for inflammation, rather than the reverse. Yet there is scarcely less mischief done by the one mistake than by the other.

["We are ready to grant, however, (says doctor Johnson,) that irritation is very frequently mistaken for inflammation by the routine practitioner, and that much mischief is daily done by this mistake." We fully concur in the opinion here expressed, because we believe irritation to be a very different thing from inflammation; and agreeing with doctor Johnson on this point, we, of course, are reminded of, and think proper, to object to an assertion of Sir A. Cooper, who says that, *the treatment of irritation being much the same as that required in inflammation*, I shall give now but a short account of it." Here too great British champions are arrayed on opposite sides; and these doctors disagreeing, who shall decide? So far are we from believing that there is any direct similarity between these different states, or that they require the same treatment, that we go even further than doctor Johnson, and maintain that irritation is the proximate cause of inflammation; and we differ no less from Sir A. Cooper, in relation to treatment, since we believe that all inflam-

mations having their foregoing irritations, we sometimes have it in our power to arrest the irritation, and thus prevent the inflammation.

Our readers are reminded that, we have given an essay on *irritation* in our first volume—we beg leave to refer to that article for the views of the present writer.]

"The cases to which I allude, resemble, in their symptoms, the most acute forms of arachnitis, pleuritis, and peritonitis; but especially arachnitis. Yet instead of possessing the power of resisting the effects of loss of blood belonging to inflammation, there is the utmost degree of susceptibility to those effects. *In the former cases thirty, forty, and even fifty ounces of blood may flow before the slightest deliquium is observed; in the latter there is frequently the most perfect syncope on abstracting nine or ten ounces of blood!*

The irritation of a calculus in the ureter, or in the hepatic duct, is well known to occasion a remarkable sympathetic affection of the stomach. The introduction of a bougie into the urethra sometimes induces rigor and a complete paroxysm of fever. Uterine irritation is not less frequently the cause of extraordinary effects upon the system generally and upon various organs.

But of all the sources of sympathetic morbid affections, irritation in the stomach and bowels appears to be the most common, and certainly not the least important. Indigestible substances taken, and disordered feculent matter retained, are the frequent sources of that combined affection of the head and the stomach, termed sick headach."

If such effects of local irritation upon distant organs be admitted, our author thinks it cannot be considered extraordinary that others less recognized should exist. The most frequent cause of this affection, says doctor H. is a disordered state of the colon—the next is, "some indigestible substance taken into the stomach." These generally require some superadded cause before the morbid affection can be produced. Some shock sustained, or some effort made by the system, is necessary to rouse into activity the cause of irritation otherwise dormant. In the same manner, indigestible substances may frequently be taken, when the health is unimpaired, with impunity; but if the system be under the influence of a shock, or effort, or of nervous or vascular excitement or exhaustion, a cause of disorder which might otherwise lie inert proves of frightful activity.

"The effects of intestinal or nervous irritation are chilliness, varying from coldness of the extremities to extreme rigor, followed by great heat of the surface, and symptoms resembling those of arachnitis or peritonitis, singly or successively, in their most acute

forms, but especially arachnitis; more rarely there is pain resembling that of pleuritis; more rarely still, a peculiar pain passing along one side of the neck to the shoulders; and occasionally, generally after bloodletting, there is palpitation of the heart.

It must be regarded as extraordinary that such marked affections have not been discriminated, and traced to their proper source. But I am persuaded that they are, to this day, confounded with inflammation of the organs chiefly affected, to the great injury, and even danger of the patient. It is indeed extraordinary how slow the human mind is to receive new impressions, even of the truth, wedded as it usually is to first opinions.

These observations apply particularly to that form of this affection which resembles arachnitis. There are few who distinguish it from arachnitis itself. I have, however, witnessed some very interesting scenes, and not less interesting convictions of the truth of the views which I have taken of this subject, in cases which have occurred in the persons or in the families of medical gentlemen themselves."

One of the earliest cases which excited our author's attention of these effects of irritation, was that of a delicate married woman, aged 35, who appeared to be laboring under inflammation of the peritoneum, the symptoms of which were so severe, as apparently to demand the lancet and leeches, by which 30 or 40 ounces of blood were abstracted. The bowels were freely purged—the stools fetid. All the symptoms being removed on the third day, a speedy and secure convalescence was expected; but, on the fourth day, doctor H. was urgently requested to see the patient.

"She had been seized with severe pain of the head, especially over the eyebrows, attended by beating and throbbing, and by the most urgent intolerance of light, so that the eyes could not be opened for a moment for examination; the pain was increased on attempting to sit up erect; the countenance was palish and sallow; the pulse full and frequent; there was no faintness or sighing.

As this case occurred very early in my investigation of the effects of irritation, I hesitated in determining whether the symptoms were such as I had already witnessed in one or two cases as arising from that cause, or were indicative of inflammation within the head. I prescribed a draught with thirty drops of the tinctura opii and of the spiritus ammoniac aromaticus, and called again in an hour and a half, not without anxiety. I was greatly relieved to find my patient better in every respect, able to bear the light, suffering much less pain, and having enjoyed a com-



fortable sleep after a night of wakefulness and distress. Aperient medicine was administered, and, after the full evacuation of the bowels, light nourishment, and a repetition of the draught with tinctura opii and spiritus ammoniæ aromaticus, whilst a cold lotion was applied to the head.

On the succeeding day, Mrs. — was better in every respect, but complained of any noise. On the next day she was comparatively well, only suffering from vertigo on raising the head.

From this time the recovery was progressive and uninterrupted, the utmost care being taken to regulate the bowels and the diet."

[The foregoing very agreeable fact, noticed by doctor Hall, of a patient being so happily relieved, by an anodyne administered in a case somewhat doubtful, as to the existence of inflammation or not, is by no means new to us.—We have, long since, been in the habit of thus testing the system, with opiates; both at a first visit, and also, in cases of inflammation after depletion. It has often been to us, a source of the extremest gratification. What greater source of gratification, then that of seeing a case of threatening aspect, where there was serious apprehension of high inflammation of some important organ; or where, after much suffering, most of the signs of inflammation remain, we nevertheless, venture to administer an opiate; and by a single dose change the whole aspect of the case; and find our patient, almost all at once, in a state of convalescence—and, this we have now and then witnessed.—Such joys were not unknown to Sydenham,\*

\* [Doctor Sydenham speaking of a "continual fever," which prevailed in 1661, says, "after vomiting, I always endeavor to quiet the tumult raised in the humors by the vomit, and therefore I order an anodyne to be taken after the vomit." In his anodyne draught he used two ounces of red poppy water, and extract of red and white poppies each half an ounce. Yet this fever was sometimes so inflammatory as to induce this author to advise bleeding before vomiting, lest apoplexy be thereby produced, of which he saw some instances.

The reader who is familiar with the practice, which has been a good deal common, in inflammatory affections, of using opium and calomel, will, perhaps, be disposed to consider these remarks rather trite; but, we are persuaded that a close attention to this subject, will bear us out in the propriety of noticing this mixed practice, of this celebrated physician: we mean alternating evacuates and anodynes, in cases of active fever or inflammation. It is true, the fever, here treated of, was sometimes of the Broussain class, that is, attended with colic and intestinal irritation, which may have rendered the exhibition of opium more beneficial, on that account; be this as it may, this author says, that a looseness was common in the declination of the fever, when "vomits were omitted although indicated; for in the progress of the disease when nature has somewhat quelled the malignant humor in the stomach, and thrust it down to the guts, they are corroded by a continual flux, &c." These are not cases of fever, "turned inwards upon the guts," as elsewhere noticed by this author; but irritation of the "guts."]

and Rush, who, both were well aware of the almost divine influence of opium properly administered.

We must acknowledge, however, that we have sometimes been mistaken, under such circumstances; and, after thus testing the system with opium, we had to return to depletion—but, even here, little injury can be done, provided we proceed with proper caution—we must watch our patients an hour or two, and we shall be enabled to judge, whether we have chosen the appropriate remedy. But even where we have to return to depletion, it will be found sometimes that the patient bears it better for having taken the anodyne.

Doctor Cullen in treating of inflammatory diseases, tells us that these remedies are almost always incompatible—that where the lancet is indicated opium is inadmissible.—We think this, as a general rule of practice, has done much mischief; but more, we are persuaded, some years back, than at present. So far are we from adopting this as an absolute rule, however correct or important, in some cases, we very frequently, in cases of irritation, which had taken on more or less inflammation, bled to such extent as we deemed proper; and we have followed up the bleeding instantler, with an opiate, and often with most decided advantage.]

The next case related is that of a young man, aged 19, who complained, on the 29th September, of shooting pain through the region of the stomach to the back, recurring at intervals. These symptoms went off till nearly the same hour next day, when he became affected with coldness of the hands and feet, flushing of the face, violent and constant pain of the head, numbness of the right hand, and contraction of the right side of the lip—slight incoherence—intolerance of light and sound. About two hours after this attack, sickness came on—a great load of matters was vomitted—and he became more collected, though still complaining of his head. Some aperient medicine was given, and he recovered in a day or two, without any depletion.

"The next patient, an intelligent surgeon, tall and robust, had undergone a painful operation on the anus, and had suffered much for six days on passing the feces and on dressing the wound; he had kept himself low, and had passed restless nights as well as painful days. On the morning of the sixth day, after some exertion, the feet and legs became extremely cold; the surface afterwards became generally heated and the mouth clammy; the face was flushed, the skin sore, and the eye-balls particularly tender; the pulse rose to 96. In the afternoon the chilliness returned, and was followed by heat, throbbing in the temples, and

pain in the head, with flying stitches in the side; the pulse was 112. Sixteen ounces of blood were taken from the arm; faintness and perspiration were induced, the throbbing ceased, but the pain continued, and the pulse was 116; the patient felt overcome, became restless, and affected with vertigo on moving, and frequent sighing.

At night the head became distractingly painful; the faintness exceedingly distressing. I found my patient with wet cloths applied over the forehead and eyes. The question of further bloodletting, or of the application of leeches was proposed to me. I was persuaded, however, that the affection of the head depended upon intestinal and nervous irritation. I therefore prescribed a large enema of gruel and oil, with sal volatile, and nourishment.

The enema induced vomiting, and a copious alvine evacuation. On the following day all symptoms of affection of the head had subsided.

In this case the natural strength of the patient, the violence, and even urgency, of the symptoms, the recovery without further bloodletting, and the extreme susceptibility to the effects of loss of blood, are all remarkably displayed, and form a striking contrast with the characters of true arachnitis."

The following case, which we shall abridge, is offered as a not less interesting illustration of this morbid affection.

Mrs. —, aged 24 years, had suffered from an attack similar to the present, some months previously. She was excited by company, and then began to complain of headach, sense of fatigue, and unrefreshing slumbers. Two days afterwards, she had alternate chilliness and flushings, the headach augmenting. These symptoms became exasperated during the next two days, the coldness of the extremities being accompanied by great pain, succeeded by extreme dryness and intense heat. The tongue was loaded—the stomach sick—the bowels disordered. During the two next days, these symptoms went on increasing—the headach being accompanied by intolerance of light and throbbing, unabated by opium, medicine and rest. It was deemed proper to draw blood; and the patient being placed in the perpendicular posture, the stream was allowed to flow till faintness took place. Syncope was produced, by the abstraction of 12 ounces of blood. The distressing symptoms continued till next day, when a discharge of scybala and unhealthy feces gave permanent relief.

"In both these cases the symptoms of affection of the head persisted after the bloodletting, and were relieved by sickness and a free evacuation of the bowels. In both, the prostration from the bloodletting was extraordinary."

The following case we shall give in our author's own words: "Mrs. —, a young married lady, in the fourth month of pregnancy, habitually constive. The present attack came on after much fatigue in travelling; and she is stated to have experienced a similar one formerly.

On the 7th of October, she complained of pain of the head, and leeches were applied to the temples. On the 8th the pain of the head was more violent and attended with much throbbing of the temples; and to these symptoms pain of the right side under the breast, a sense of tightness across the chest, and hurry in breathing, were superadded. Twelve ounces of blood were drawn, and an efficient aperient medicine was given, and on the 9th and 10th she was much better, and a saline medicine was prescribed.

On the 11th she was again taken worse, after imprudently sitting up, the beating of the temples, tightness across the chest, and difficulty in breathing returned, unattended by cough. Sixteen ounces of blood were taken from the arm, with great relief, and the aperient medicine was repeated.

The patient was relieved, and continued better on the 12th. In the night of the 13th the medical attendant received an urgent message to visit his patient, and found her affected with the severe pain and beating of the head, great tightness and pain across the chest, and with violent palpitation of the heart. Twelve ounces of blood were taken, and calomel and other aperient medicines given, with considerable relief.

On the 14th a physician was consulted, who prescribed the pil. hydrarg. with an aperient draught. In the night the apothecary was again sent for, all the symptoms having returned, and now, for the first time, with the addition of a slight cough. Eight ounces of blood being drawn, great relief was obtained.

In the night of the 16th the medical attendant was again sent for; all the symptoms had returned in a still more aggravated form, the pain of the head, tightness across the chest, palpitation, and cough being extremely severe. Eight ounces of blood were drawn without relief; the head was shaved, a cold lotion applied, and a blister ordered for the back of the neck.

On the 17th I saw the patient for the first time; there were much pain and throbbing of the head, which felt benumbed and heavy as if she could not raise it from the pillow; there had been no sleep; the pupils were extremely small, with intolerance of noise and disturbance of any kind; there were palpitation of the heart, and sometimes faintness and a feeling of sinking or dying; there were a sense of tightness across the chest, oppression in the breathing, and a peculiar tracheal or laryngeal cough; some pain in the region of the uterus, increased by

pressure, but no vaginal discharge;—the countenance was usually pale, but sometimes flushed, the tongue extremely loaded, and even black at the back part; the alvine evacuations, on giving purgative medicine, were still, as at first, dark-coloured, offensive, and scybalous, and afterwards, offensive and like yeast; the pulse was 120.

I was forcibly struck by a general but marked resemblance of this case, to those already given, and to others of the same nature which I had witnessed; the depleting plan already fully adopted and repeated had proved ineffectual in affording lasting relief; the purgatives hitherto given, were, I believed, inefficient. The plan I proposed was, to give efficient purgatives, to restrain their operation by draughts with tinctura opii and spiritus ammoniæ aromaticus, to support the strength by means of nourishment given every hour or oftener, to procure sleep by anodyne enemata, to guard against exertion or fatigue, noise, or disturbance. The recovery was uniformly progressive; there was not even one recurrence of the painful attacks; the symptoms gradually disappeared, the pulse becoming natural, the pupils of the natural size, the head and chest relieved, and the bowels daily but fully moved; quiet sleep, and a good appetite returned.

In six days the patient was convalescent; shortly afterwards she bore a long journey home without any ill consequence, and at the proper time, had a safe delivery."

Those forms of this morbid affection, says our author, which resemble peritonitis and pleuritis, are equally characterized by alternate chill or rigor and heat—frequency of pulse—and susceptibility to the effects of loss of blood. They do not occur so frequently or distinctly as the affection of the head. The following is a graphic description of this affection in general terms.

"It generally begins in the manner of a sudden attack. This attack is usually ushered in by rigor, indeed by a more distinct and decided rigor than is observed in many cases of inflammation; the rigor is usually soon followed by much heat of surface; with the heat the patient experiences some affection of the head, chest, or abdomen, and, indeed, frequently of all, there are vertigo on raising the head, pain, and some morbid impression on the mind, panting in the breathing, fluttering about the heart, with general hurry, irritability, and restlessness; the tongue is white and loaded; the alvine evacuations are morbid, dark-coloured, fætid, and scybalous,—or yellow like the yolk of egg,—or of the appearance of yeast; the urine is turbid and frequently deposits a copious sediment.

The affection of the head consists of the most acute pain, the greatest intolerance of light and sound, and the severest form of vertigo, wakefulness, and distress, and sometimes even delirium, and the pupils of the eyes are often extremely contracted.

The affection of the chest is denoted by severe and acute local pain, which is apt to vary its situation, passing from one side to the other, or to the back, or occupying a situation higher up, or lower down: this pain checks a deep inspiration, and even the ordinary breathing, to which it imparts a character of difficulty and anxiety.

When the abdomen is affected, there are acute pain, and great tenderness under pressure, in some part, or more or less generally diffused. The attack and situation of the pain are such, in some instances, that the case is with difficulty distinguished from gall stones, though it more generally resembles peritonitis.

When the heart is the seat of this affection, there are violent and terrific attacks of palpitation, and the course of the carotids, and even of the abdominal aorta, is sometimes the seat of violent pulsation or throbbing.

All these affections are apt to occur in sudden attacks, and to recur in paroxysms,—perhaps varying their form,—and exciting great alarm in the patient and his friends, who usually despatch a hurrying message to the medical attendants."

The cases and observation which have been laid down establish the fact, that there are attacks which resemble inflammation of the head, chest, or abdomen, and yet are totally different in their nature—a fact that is highly important, in regard to diagnosis, on which the well-being of the case depends. The following diagnostic marks cannot be abridged without detriment.

"I would first observe that the attack of irritation, is in general, more sudden than that of inflammation, which is usually formed somewhat more gradually. This circumstance must therefore be cautiously inquired into, and may assist the diagnosis.

I believe, too, that the seizure in the former case is attended by more distinct rigor, and afterwards by greater heat, than in the latter.

The case of irritation affects, in a marked degree, more organs at once, than that of inflammation, which is usually confined, at first at least, to one.

The state of the tongue and the condition of the alvine evacuations are far more marked by disorder, and the latter are far more offensive, in attacks from irritation than in cases of inflammation.

The affection of the head from irritation comes on suddenly, is formed all at once, and is frequently attended by great restlessness, suffering, and distress, and there is early syncope in taking blood. In arachnitis, the disease is usually forced somewhat more gradually; the patient has been subject to pain of the head perhaps for some days or even longer; he complains less; or at least there is less urgent distress,—less distress of a general kind; the pain may be very severe, although it is more frequently rather obscure; the intolerance of light and sound is less urgent; the rigor, and subsequent heat, and the attack in general are less marked; the patient is not so soon relieved by remedies, and the tongue and alvine evacuations are less morbid, and there is, especially, great tolerance of loss of blood. In the attack of affection of the head from irritation, the patient is relieved perhaps completely if the lancet be employed, but the attack soon recurs with equal or greater violence; in arachnitis, the relief is seldom so complete, the interval of ease so long, or the return so marked, the pain is diminished, perhaps, but gradually resumes its former violence, unless active measures be interposed.

When the chest is affected from irritation, the pain is severe and acute, and perhaps increased by a full inspiration; if the inspiration be repeated, however, a second and a third time, the increase of the pain is less and less; the situation of the pain varies; there is no cough, no crepitus on making a full expiration. In all these respects the case differs from inflammation. The remarks already made respecting the relief from remedies, the effect of bloodletting, the tendency to a sudden recurrence of the pain, &c. in cases of affection of the head, apply equally here.

"I had long remarked that there might be both acute pain and tenderness under pressure, of the abdomen, without inflammation; this state of things is frequently the result of intestinal irritation. It is distinguished from inflammation by the general symptoms of this affection, the mode of attack, the effects of remedies. In inflammation, the surface is usually cool, the head unaffected, the patient remarkably quiet; in the case of irritation, on the contrary, there is generally much heat after rigor, the head is much affected, and the patient is restless and generally distressed, the tongue loaded and perhaps swollen, the alvine evacuations extremely morbid, and great relief is obtained by the free operation of medicine."

Besides the circumstances already pointed out, Dr. H. draws the attention of the profession to some other points, which he considers as very interesting in their nature, and worthy of serious consideration. The *first* is, the occurrence of severe af-

fection immediately consequent upon causes apparently inadequate to the production of such effects. Thus a slight blow, or a trifling fall, has appeared to produce an alarming indisposition.

"The truth is that there was already a disordered and loaded state of the bowels,—dormant until roused into effect by the accident. A lady about fifty years of age, fell a few steps down stairs; she got up however and walked to the sofa; in a short time she was taken with chilliness, succeeded by heat of skin and the most intolerable pain of the head and sensibility to light, noise, &c. She soon recovered on taking active purges alternated with the ammoniacal anodyne draught."

2dly. Observant practitioners must have often remarked cases of apparent inflammation, probably yielding sooner than usual, or receding altogether, and recurring periodically. 3dly. Such cases are sometimes relieved, but often refuse to yield to the lancet, recurring with great violence, when quite unexpected. 4thly. There is metastasis apparently of the local inflammation, whilst, in fact, the cause of the whole remained unremoved. 5thly. On dissection of apparent inflammations of internal organs no trace of the disease can be discovered. "The view which has been given of the effects of intestinal irritation may assist us in explaining an event which must have been witnessed by all who have, in any degree, pursued the study of morbid anatomy."

The mode of treatment consists in the free evacuation of the stomach and bowels—anodynes—light nourishment—and some local remedies. On each of these measures our author makes some judicious remarks; but these need not detain us longer, as their application is sufficiently obvious. He justly observes that, if our diagnosis could always be depended upon, there would probably be no occasion ever to use the lancet in such cases. But as, "*judicium difficile*," it is best, perhaps, to have cautious recourse to bloodletting even in intestinal irritation—since irritation may lead to inflammation.

The last two chapters we must pass over, partly for want of space, but principally because their contents have been a good deal anticipated in former publications by the same author, and in previous numbers of this Journal. We have adduced sufficient proofs that doctor Hall does not slacken in his pace of indefatigable observation, and unquenchable zeal, though we certainly regret that he does not give his works a more concentrated and systematic form; since they are now becoming so blended and reiterated that it requires a good memory to distinguish the old from the new—a keen taste to distinguish the meat fresh off the spit from that which has been hashed, even a second or third time. One thing, however, may be safely asserted,



viz. that, whatever kind of viands doctor Hall spreads upon the table of his guests, is wholesome and good—a recommendation of no mean value in the present day, when it cannot be said, with truth that, “what does not poison will fatten.”

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ART. IV. *On the Diseases and Injuries of Arteries, with the operations for their cure, &c.* By G. J. GUTHRIE, F.R.S. Professor of Anatomy and Surgery, to the Royal College of Surgeons, &c.

[This article is taken from the London Medico-Chirurgical Review, No. 25.—Mr. Guthrie's observations are enclosed in quotation marks, ours in brackets; those of the review are not marked.]

ON the importance of the subject of aneurism and wounds of the great vessels of the human body, we need scarcely dwell. It is to surgery what fever is to physic, nay more, it is almost its alpha and omega. On an intimate acquaintance with the physiology and pathology of the arteries depends the doctrine of inflammation, that essential dogma which has so long and so often convulsed the schools, which has raised to power and shaken to their foundation the successive dynasties of Humorists and Solidists, the tyrannies, if we may use such an expression, of the great masters, of Boerhaave, of Cullen, and of Hunter. The surgeon who is acquainted with the nature of the diseases and accidents to which the arteries are liable will certainly prove a benefactor to humanity; the man who is not so and yet has the responsibility of such cases imposed on him in practice, is as certainly a curse. Who can pursue the serio-comic anecdotes in the works of John Bell, without feeling a shudder creep over his mirth at the satiric picture of an ignorant surgeon, so happily delineated by the powerful graver of that able man! Fortunately the objects of such satire are daily becoming more and more scarce, and the great body of the profession are possessed of a general degree of information on these topics which pleasingly contrasts with the ignorance of “sixty years since.”

Mr. Guthrie's work is divided into two parts, not altogether unconnected, but yet in many points distinct. The first comprises the diseases of arteries, the second their injuries. The object of the former is, according to our author, “to demonstrate the value and importance of that portion of the pathological collection in the museum of the Royal College of Surgeons which relates to the subject of aneurism; and to prove that the labours and researches of Mr. Hunter anticipated nearly all the observations which have been made by his contemporaries and succe-

sors." In the latter Mr. G. has entered more fully into the consideration of the nature and treatment of wounds of arteries, and illustrated these points by observations and cases which occurred during the late war, in Portugal, Spain, France, and the Netherlands. The matter contained in the volume has been for many years announced as preparing for the press, but although it has not hitherto appeared in print, it has been annually promulgated in our author's surgical lectures; and if delayed it has certainly not been withheld. Our narrow limits not permitting us to notice the whole, nor even the greater part, of the work in the present number, we shall pass at once to the subject of wounds and injuries of arteries, and reserve that of aneurism for another and early opportunity.

Mr. Guthrie commences with a remark of much value, though too often neglected by physiologists and surgeons, viz, that the analogy between wounds of the arteries in animals and in man, however specious, is not satisfactory; because neither are the consequences similar, nor is the reparative process adopted by nature the same. We all know with how much difficulty aneurism is produced in the lower animals; with how much facility it occurs in the human species. Nature is all powerful in arresting hemorrhage in the former, but no judicious surgeon will trust to her efforts alone in the wounds of arteries in the latter; here art must come to the assistance of nature in the most effective manner that the state of the case will permit. After noticing briefly but succinctly the phenomena observed to succeed the infliction of wounds on the arteries in man and other animals, and giving an abrogé of the opinions of writers, on the steps pursued by nature for the suppression of hemorrhage, from Galen and Celsus down to doctor Jones, Mr. Guthrie proceeds to deliver his own opinions.

"I must observe, in regard to the observations which follow, that they have been deduced from others made on man; suffering from different states of injury, which the opportunities offered to me during the Peninsular war allowed me to make on an extensive scale. Some points have been corroborated by experiments made on animals; and I shall here acknowledge my obligations to Mr. Sewell, of the Royal Veterinary College, and to Mr. F. Thomson, who undertook several of them, and gave themselves much trouble to ascertain the objects I had in view.

In the different theories I have noticed, and especially in that of doctor Jones, it does not appear that the gentlemen who proposed or maintained them have ever conceived that there was a difference in the means employed by nature, according to the size of the artery injured or divided; that the difference of structure between an artery, such as the carotid or the inguinal, and the ti-

bial or the radial, could cause any deviation from the process they described as taking place, and as they presumed in one invariable manner in all arteries. I shall venture however to say, that on the size and variation of structure of the artery, the process employed by nature essentially depends; that it is not the same in large, as in small arteries; and that it is not even quite the same in the upper and lower ends of the same artery.

An artery of moderate dimensions, such as the tibial, or brachial, and particularly all below these in size, are in general capable by their own intrinsic powers of arresting the passage of the blood through them without any assistance from art, or from the surrounding parts in which they are situated. This overthrows at once the whole theory which relates to the sheath of the vessel and its offices, and in a great measure to the importance derived from the formation of an external coagulum."

[We by no means approve of the assertion, that, "an artery of moderate dimensions, such as the tibial or brachial, and particularly all below these in size, are in general capable by their own intrinsic powers, of arresting the blood through them without any assistance from art," to a certain extent, this opinion is true; but its admission, with a view to resting any rule of practice upon it, would be extremely dangerous. Arteries of moderate size must be divided in many cases before they will cease to bleed; and their power of intrinsically arresting the hemorrhage will depend upon the smoothness of the cut surface, or rather, perhaps, the smoothness of the cutting instrument—and also upon the peculiar situation at the point of division, as relates to attachments. Arteries of the order under notice, (the tibial and brachial,) will be but slightly affected by this circumstance; but, they may differ occasionally in this respect; and, all arteries below this, in the extremities, are much influenced by the more or less retraction which takes place; and this differs materially in different cases: the point of division may happen to be more or less connected with the surrounding fascia—we see this plainly illustrated in cases of amputation. Thus, in one case, the artery will remain on a level with the surrounding parts—in another, it will retract so as to give some trouble in tying, or in the application of the torsion.

We have not unfrequently seen wounds of arteries of the hands and feet bleed, in spite of compression, to a dangerous extent, and, some cases, no doubt, would terminate fatally if the vessel were not tied.—What then are we to think of a sweeping assertion, that such arteries have inherent powers, which will do away the necessity of using the ligature?

It would also be well known to most surgeons, that small arteries in the genitals will bleed dangerously; and it follows that

they should never be trusted to compression. It may be said, that Mr. Guthrie would not insist upon leaving these vessels untied; and that, he is here merely speaking of the mere power, without wishing to trust to it; but why propose this as an improvement upon the theory of others, in regard to the process by which nature closes divided arteries?]

As it mostly happens that patients do not choose to bleed to death for the pure love of science, nor surgeons avoid restraining hemorrhage on their own or their patients' accounts, so we seldom have an opportunity of seeing the processes of nature in human beings, undisturbed by the interference of art. Mr. Guthrie, however, deems it odd ratiocination to bleed an animal until it dies, in order to determine how a bleeding was suppressed, which in point of fact was never suppressed at all.

"In my work on gunshot wounds, I have related the case of a soldier, who had his arm carried away by the bursting of a shell at the siege of Ciudad Rodrigo, and who was brought to me shortly afterwards. The axillary artery, becoming brachial was torn across, and hung down lower than the other divided parts, and palated up to the very extremity. Pressed and squeezed in every way between my fingers in order to make it bleed, it still resisted every attempt, although apparently by the narrowest possible barrier, which appeared to be at the end of the artery, and formed by its contraction. The canal was marked by a small red point, to which a very slight and thin layer of coagulum adhered, the removal of which had no influence on the resistance offered by the end of the artery to the passage of blood through it. In another case of a similar character, I cut off the end of the artery at less than an eighth of an inch from the extremity, when it bled with its usual vigour. In both, the vessel for that distance was contracted, so as to leave little or no canal at its orifice, and what there was, was filled by a pin-shaped coagulum."

If in amputation at the wrist the radial or ulnar arteries be allowed to bleed until they cease to do so, the jet subsides into a stream, and the latter gradually diminishes until it ceases altogether, the extremity of the vessel being covered by a layer of coagulum of greater or less thickness. Some retraction of the artery must take place in such cases, but it cannot be fairly estimated. On examination after death or amputation, the contraction of the vessel is evident, as well as the formation of a very slight external coagulum, extending into the canal of the artery. In these cases the sheath of the vessel can do nothing, for there is none; nor does any internal coagulum, strictly speaking, exist; nor in the instance of such moderate sized arteries does the diminished power of the circulation go for much.

Although he has thus established the fact, that second-rate arteries in the extremities will cease to bleed, without the assistance of surrounding parts, Mr. Guthrie by no means intends to assert that they cannot and never do receive any; on the contrary, he is aware that in a great number of instances the reverse is the fact.

After remarking that the power of the heart over the circulation is egregiously over-rated, Mr. G. asserts without fear of contradiction, that when a large artery is fairly exposed and divided, a very slight degree of pressure perpendicular to its orifice is sufficient to suppress the hemorrhage; and an equally moderate pressure on the sides of the artery will prevent the passage of any blood through it. If, however, the vessel be only half cut through, and in a situation inaccessible to slight but equable pressure, the hemorrhage continues in spite of all attempts at its suppression. When the femoral artery is cut across in the upper part of the thigh, whether it be done by a cannon shot, musket ball, or knife, the patient does not always bleed to death, although frequently lost in consequence of the injury. If the division of the vessel take place in the middle or lower half of the thigh, the bleeding will probably cease of itself, and if it recurs it is more likely to proceed from the lower than the upper portion. Such are the statements of Mr. Guthrie, and no doubt they are founded on actual observation in the field. We doubt, however, whether surgeons in civil practice are generally of the same opinion, perhaps, as Mr. Guthrie has elsewhere remarked, because a little experience and more alarm, have conspired to persuade them, like the fat and fearful knight, of the reality of the terrors of their own conjuration. However this may be, it is evident that Mr. Guthrie looks upon these injuries without any degree of dread or consternation. At the battle of Toulouse, a large shot struck an officer in the thigh, and divided the artery about three inches below Poupart's ligament. Circumstances prevented immediate attention, and he died without any operation being performed. Desirous of seeing by what means the hemorrhage "had been suppressed," our author carefully removed the artery, and found that its divided end was irregularly torn, and filled up by an external coagulum, which was slightly compressed at its inner end by a trifling contraction of the artery that served to keep it in its place. The rest of the coagulum filled the hollow in the sheath which the retraction of the artery had occasioned. "In this case," says Mr. G. "so unlike those I have hitherto noticed, the first natural cause giving rise to the suppression of the bleeding was the diminution of the power of the circulation; the second, the formation of a coagulum, formed in the hollow of the sheath left

by the retraction of the artery. Contraction had done nothing." In a similar case, at the battle of Salamanca, the hemorrhage stopped and did not return, but the patient died exhausted; no operation whatever was attempted, nor Tourniquet applied. The artery, on examination, was in just the same state as the former, with the mere exception of the orifice being a little more contracted, and the external coagulum less in size, and projecting like a mamillary process. In other instances of a like description the appearances have more or less resembled the above; unless where the patients had died immediately, when the torn extremities of the artery have been quite open, with very little or no surrounding coagulum. It must be obvious to our readers that the persons whose cases have been related were similarly circumstanced to those of animals bled to death, and consequently the appearances resembled those observed by Doctor Jones in his experiments.

Mr. Guthrie has had many cases of injury of the femoral artery from smaller projectiles under his care. When the artery has been completely cut across in the *middle or lower part* of the thigh, the patient has either died without assistance, or the hemorrhage has ceased spontaneously. He has not met with an instance in which it has been necessary to tie the femoral artery after it had been divided and the hemorrhage had ceased for the space of twelve hours, the efforts of nature being sufficient to prevent its return. Mr. Guthrie has met with a considerable number of cases of gangrene of the extremity, or hemorrhage from the lower end of the vessel requiring amputation, after wound of the femoral artery. Ten or eleven cases of this kind are detailed by Mr. G., but as many, if not most of them, have already been published in the 4th vol. of the Medical and Physical Journal, and as on several occasions we have drawn the attention of our readers to this point, we shall pass them over without any further comment.

"An artery of the size of the femoral at the *middle or lower part* of the thigh, retracts on being divided within its sheath: this retraction is also accompanied by a contraction of the orifice or extremity, which gradually assumes the shape of a Florence oil flask, or French claret bottle, in a similar manner to the contraction of the axillary artery, described page 224. I have not met with an instance so perfectly clear and decided of the femoral artery hanging out of a wound, as in this case of the axillary artery, so as to demonstrate that the whole process is carried on in a similar manner. I have however seen the femoral artery at the lower part of a thigh, which had been struck by a cannon ball, so little supported by coagulum, and yet so much closed, as to lead to the belief, that in some instances the extremity of it

may be closed by similar means, a conclusion which analogy would lead us to, if observation were wanting. In all successful cases, the retraction of the artery leaves a space occupied by a coagulum, which also in an artery of this size fills up the contracting opening, which is in a circular direction, just within the ragged edges, which when they exist do not themselves contract, because the continuity of fibre is wanting. The continued contraction of the artery expels the external coagulum, and this operation is assisted by the lymph effused from the cut edges and from the coats of the vessel ;so that in a few days the whole of the coagulum is removed with the purulent discharge from the part ; and the place it would occupy, the orifice of the artery, and the surrounding parts for at least an inch in extent, are filled up and covered by a yellowish green-colored matter, very distinct in appearance from the neighboring parts. On the examination of a wound after death or amputation, in which it was known that a great artery had been divided, I have always, from this appearance, pointed out the situation of the extremity of the artery.

The contraction of the divided end of the artery is confined in the first instance to its very extremity, so that the barrier opposing the flow of blood is formed by this part alone, as I proved by cutting it off in the case mentioned, page 224. This contraction goes on however increasing for the space of an inch, and the inside of this contracted inch of the vessel is filled up with internal coagulum, which takes the shape of, and adheres to, the inside of the artery, rarely extending as far as a collateral branch, or under almost any circumstances beyond a couple of inches. Towards the extremity of the artery it adheres firmly, so as to form a real substantial obstacle to the flow of blood through it. The very orifice of the artery on the outside of this is covered by the yellowish green-colored matter or lymph, which ultimately becomes organized. These processes are continued long after the wound is healed. The artery generally goes on diminishing and contracting up to its first large branch, so that of four or five inches, two or three will be impervious, the remaining part very much contracted, although perhaps still permeable by a probe. The accompanying nerve, where there is one, has just done the reverse, the cut extremity having become enlarged or bulbous, and gradually diminishing as it is traced upwards, until it becomes of its proper size." 246.

Mr. Guthrie observes, that it is a very curious and interesting fact, that the lower end of a divided artery is more prone to secondary hemorrhage than the upper ; so much so indeed, that when it occurs, it takes place in all probability from the lower end. This may always be known by the darker color of the

blood, and by its *welling* out in a continuous stream without any arterial impulse. Mr. G. paid particular attention to this point during the war, and he is confident he cannot be mistaken as to the fact.

[We have long been fully sensible of this fact, and we deem it one of vast importance, since it has a bearing upon all wounds of the arteries; and especially upon those of the hand and foot—thus we see a division of an artery in the foot by a wound; compression is made by a surgeon, by means of sponge, compresses, rollers, &c. still the wound bleeds furiously from time to time. Tie the main artery as the posterior tibial, when the wound is in the sole of the foot, still the wound will bleed, apparently, as freely as before; but upon resuming the compression it will be found that the hemorrhage can easily be checked.

And it is especially important, as Mr. Guthrie assures us, in wounds of the arteries, to know that the lower end is much disposed to bleed—whether it be greater than that of the upper as has been supposed by our author we will not undertake, at this time, to decide, we have already given intimation that we have long known it to obtain very frequently, and we are of the opinion that all the books which we have seen, have not insisted sufficiently upon the importance of this rule of practice. We will not stop to detail cases, but we have seen many cases where fatal hemorrhage would have occurred, in all probability, had we trusted to tying the upper portion of the artery.

There is nothing in the observations of our author that we deem more important, than the rule which he recommends of cutting down through muscles, where necessary, rather than attempt too regular a dissection between the muscles by taking a point, where these admit, most easily, of our getting at the vessel without cutting any muscle. Certainly we should always do the parts as little violence as possible, but sometimes it is of the very first importance, when we get down upon the point wounded, in order that we may apply two ligatures; and, where the parts are deep, as in the calf of the leg, we shall do less violence, by cutting down through the muscle, instead of splitting the dense fascia on the inside of the tibia, and press apart the muscles; indeed, we find the parts so bound, in this part of the body, that it is always difficult to apply a ligature to either of the arteries in the calf, by cutting the muscle somewhat, we shall succeed better.]

“The same kind of yellowish green matter marks and covers the situation of the lower extremity of the artery, as it does the upper; it is, however, thinner where it immediately covers the end of the artery, which in none of these cases was contracted in the conical manner I have described, as occurring in the up-



per extremity of the vessel. On the introduction of a probe into the artery with the greatest gentleness from below, it made its appearance at a point on the yellow space, raising a thin portion of it as it protruded. On laying open the artery, the orifice seemed to have been once closed by this layer of fibrine or lymph, but without a degree of contraction corresponding to that observable in the upper end of the same artery; the layer still forming an obstacle, sufficient to cover and close three-fourths of the orifice, the blood having flowed through the remaining fourth." 250.

These appearances seem to indicate a different process to that adopted for the closure of the upper end of the vessel, and their frequency to demonstrate that the process is a natural one. Two cases are detailed in illustration of the foregoing statements, and we shall briefly glance at the first.

Serjeant Lillie, æt. 32, was wounded in the thigh by a musket ball, which described a track of seven inches, and was extracted behind on the field. He bled a good deal at the time, but restrained the hemorrhage with his sash, and, for 19 days, the wound appeared to be going on extremely well, when, on making a sudden turn in bed, dark-colored blood flowed from both orifices of the wound in considerable quantity. Mr. Dease, in the absence of Mr. Guthrie, performed the operation for aneurism at the lower part of the upper third of the thigh; in eight days the hemorrhage returned, the limb was amputated, & the patient died. On examination, the artery was found to have been divided, where it passes between the tendinous expansion of the triceps and the bone; the upper portion divided by the shot, was closed; a probe introduced into it from above would not come out at the face of the wound, although the impulse given to the part on moving it was observable in the middle of a large yellowish green spot, where the vessel presented a claret-shaped contraction for about an inch, and an internal but small coagulum for nearly the same extent. The lower or bleeding end of the artery was marked by a nearly similar spot, but, on passing a probe upwards from the popliteal space, it came out a very small hole in the extremity of the artery in the centre of the spot. The canal of the vessel was not contracted or diminished, but only apparently closed by a layer of the yellowish green lymph laid over it, and adhering to its circumference.

When an artery is merely cut or torn, without being completely divided, it is just as if it had given way by ulceration. It can neither retract nor contract, but, if pressure be not accurately applied and maintained, it will bleed until the patient is destroyed. If the vessel is a small one, as the temporal artery, it must

be cut across; if of larger dimensions, a ligature should be placed on it above and below the wound, between which it may or may not be divided; at the pleasure of the surgeon. This rule is so important that every tyro should learn it by heart. We now arrive at the section entitled:

*On the Methods of Performing Operations on the Wounded Arteries.*

Our author sets out with the just and important principle: that however applicable may be the Hunterian operation to cases of aneurism, and however brilliant its success in the treatment of that disease, it is totally inapplicable to wounded arteries. Surgeons for some time imagined that the same operation must answer in the one which had been followed by such splendid consequences in the other, and dazzled by the glory that surrounded the genius of Hunter, they misconstrued his views and perverted his principles. The error is now perceived and abandoned, but although the necessity of securing an artery of any size above and below the wound in its coats is now generally acknowledged, Mr. Guthrie contends that the *modus operandi* has been absurdly and unnecessarily retained. The examples of this mistake singled out by Mr. Guthrie are, the operation for wound of the posterior tibial artery, of the axillary, and ulnar at its origin from the brachial. In operations for aneurism, the surgeon, in some measure, chooses his situation, and proceeds in a straight-forward manner, according to certain definite rules. In casual wounds of course it must be otherwise, but Mr. Guthrie contends that rules are still inflicted to clog and bewilder the younger surgeon. "The principal error," says our author, "in this method of proceeding, as adapted to wounded arteries, arises, from a strange and unaccountable fear of cutting muscular fibres, which seems to have pervaded the minds of all the surgeons of the present day who have treated on these subjects."

Suppose, for instance, that the posterior tibial artery is wounded, and the surgeon determines to tie the vessel, he will be obliged, according to the usual mode of operating,\* to raise the inner edge of the gastrocnemius muscle, to detach the inner head of the soleus from the tibia, to divide the deep seated fascia on a director, and then to secure the vessel in a deep cavity, taking care to avoid the posterior tibial nerve. After noticing, in a very forcible manner, the acknowledged difficulties of this awkward operation, Mr. Guthrie proceeds to propose his own method of operating:—

\* For an account of this operation, see Harrison on the Arteries.

"An incision is to be made six or seven inches in length, by successive and rapid incisions, through the integuments and muscles of the calf of the leg down to the fascia. The centre of the incision is to be on a line with the shot holes, or if they are diagonal to each other, between them; and it may be either directly in the middle of the calf, or a little to the side of, or directly over, the artery supposed to be wounded; it is not material which. The smoothness of the fascia point sit out, and the loose cellular membrane connecting the divided muscles to it, allows of the edges of the long incision being easily separated, and to such a distance as to admit of the exposure of the great nerve, the arteries, and veins, in as distinct a manner as any other arteries, veins, and nerves, can be exposed in the human body. The tourniquet is now to be unscrewed, and the bleeding, if the wound did not bleed before, leads to the spot where the artery is injured. The knife may be applied perpendicularly to the fascia, and the artery laid bare for three or four inches in extent, by as common a piece of dissection as any ever practised, and nothing can interrupt the application of the ligature. The nerve and the fascia cease to be surgical bugbears, and the operation is as simple as any in surgery. No surgeon or anatomist will dispute this statement: he may however say, that the muscles have been divided, and that surgeons have not been in the habit of cutting through them by a fair incision in their length; that they have hitherto only done it by insinuating a director under the head of the soleus, and separating it from its attachment to the bone: as if the separation of a muscle from its bony attachment was not much more likely to lead to weakness and defect in the action of that muscle, than a mere interstitial incision in a longitudinal direction. There is no anatomist who will deny that it is so." 261.

In order to prove that a muscle may be cut across, whenever it may be desirable to do so in order to place a ligature upon an artery, and that little or no inconvenience is the consequence, Mr. Guthrie relates the case of Lieutenant Colonel Wildman, in whom the deltoid was completely divided by a sabre-cut. By raising the arm to a right angle with the body, and bringing the sides of the wound together with compress and bandage, granulations sprung up, and the officer's recovery was so perfect that, he is now unconscious of any defect in strength and motion. In a French soldier, also, the lower and fore-edge of the pectoralis major was completely cut across, and yet merely a little weakness, of no consequence was left. In accordance with these facts and the principles already brought forward, Mr. Guthrie criticises sharply the operation, as laid down in Harrison, of tying the axillary below the clavicle, for wound of the artery

through the pectoralis muscle. He also animadverts on a case related in Mr. C. Bell's Commentary on John Bell's Surgery, in which this operation was performed unsuccessfully for secondary hemorrhage from the axillary, after the arm had been torn off by machinery. The artery when wounded, should always be secured at the spot, and, if necessary, the pectoralis major muscle should be divided, taking the hole or cut as the centre of the incision.

Mr. Guthrie next passes on to the manner, of securing the ulnar artery when wounded a little below its origin, and whilst covered by the pronator teres, &c. In Mr. Harrison's work it is stated that, at this point, a ligature of the artery "would be impracticable," but Mr. Guthrie tauntingly remarks, that it would only be so because it is so considered. The surgeon should make a clean incision down to the artery through all the muscular fibres that cover it, avoiding the median nerve as it runs between the two origins of the pronator teres, and then he should place a ligature above and another below the wound in the artery, "when there would be nothing more to do." Mr. Guthrie has seen these parts divided, and he has divided them himself, and the patient has recovered without any sensible defect. In a case at the battle of Vintiera, in which the ulnar artery was wounded, Mr. G. cut down upon the vessel, which he found more than half divided, and tied it above and below the wound. The patient was cured. Before continuing the thread of our analysis, we may observe that Mr. Guthrie has proved, that the mere division of muscular fibres is far from being an insuperable objection to an operation. The only question appears to be, the facility in all cases of performing it. Suppose, for instance, a wound of the ulnar artery near its origin, with great extravasation of blood into the neighbouring parts; in such a case, it would be difficult to find and secure the bleeding vessel, buried, as it is under layers of muscle and a mass of blood. The same may be said of wounds of the posterior tibial artery; but, as Mr. Guthrie has had a practical experience in these operations which others have not, his opinion is entitled to more weight than theirs. We would not be understood as quarrelling with the principle inculcated, of tying both ends of a wounded vessel in every practicable case; on the contrary, it is one to which we yield our undivided assent, and to which we would most earnestly direct the attention of our readers.

Connected with this subject our author adverts to, and keenly animadverts on, a memoir published by M. Dupuytren, in the *Repertoire General d'Anatomie et de Physiologie*, &c. tome v. 1828, entitled—"Sur les Anévrysmes qui compliquent les Fra-

tures et les Plaies d'Armes-à-Feu, et sur leur Traitement par la Ligature, pratiquée suivant la Méthode d'Anel."

After alluding to some cases by Petit, Pelletan, M. Delpech and himself, M. Dupuytren proceeds to relate, at some length, the case of M. de Gamhand, a captain of cavalry, who received a wound from a horse-pistol bullet, which entered the upper part of the right leg, from the front backwards and from the outside inwards, passing between the tibia and the fibula, which latter it slightly injured. Violent bleeding immediately ensued, which was stopped by compress and bandage, although the limb became swollen and very painful. An aneurismal tumour formed, the pulsations of which were at first arrested by the pressure of a tourniquet and pad on the femoral artery, but they soon returned, and, on the thirteenth day, hemorrhage took place from the wound. The bleeding returned from day to day, and M. Dupuytren was called into consultation with Messrs. Aumont and Dessien. The foot and leg were of a violet colour, swollen, cold and numb, and uncertain whether the anterior or posterior tibial artery, or the peroneal or popliteal, or several of them at the same time, were divided, M. Dupuytren tied the femoral artery. Inflammation was moderate; on the twentieth day the ligature on the femoral artery came away, and, in six weeks, all the wounds were completely healed.

"Ought we to attribute" says M. Dupuytren, "the success of this operation to the accidental concurrence of fortunate circumstances? or ought we to look upon it as the natural and necessary consequence of the principle acted upon, in placing a ligature on the femoral artery? and should such a method of proceeding be established as a precept in surgery? To answer these questions, allow me again to mention, that this method of treating simple aneurisms always stops the pulsation of the tumor; and even when employed against aneurism complicated with fracture has been very successful; and, finally, that this method, which M. Delpech and myself first practised nearly at the same time, in cases of hemorrhage following amputation, has invariably been attended with success. From these results I think it evident, that the success of the present operation was not dependent upon any fortuitous occurrence; but on the contrary was the natural consequence of the practice pursued. The ligature, in suspending the course of the blood in a divided vessel, the solution of continuity of which had caused an external and internal bleeding, gave time and means to the inflammation to cicatrize the wound in the vessel, and to render the cut extremities impermeable to the blood which the anastomosing branches might bring to them.

To judge by analogy, this obliteration ought to be more easy and more certain after gunshot wounds than any other.

One of their most remarkable effects being to contract (*froncer*) the orifices of the vessel, to concrete or coagulate the blood contained in their extremities, and to render them impervious.

Without therefore wishing to elevate this single fact into a principle, I do not hesitate to consider the success obtained in this case of M. de Gambaud as the forerunner of other similar fortunate results.

Many other reflections occur to me, but I hasten to a conclusion, drawing attention to the principal points of the memoir. First, the rupture of the principal artery of a limb, occasioned by a fracture, and followed by an extravasation of arterial blood round the broken bone. Secondly, the rupture of the principal artery, of a limb caused by a musket ball, followed by an extravasation of arterial blood, having in both cases the character of an aneurismal tumour. This complication of injuries, either of which alone would be serious, had never till now been cured but by amputation.

The ligature of the principal artery of the limb, made at some distance from the wound, and between it and the heart, will I believe prevent the necessity of this cruel mutilation."

Previous to making any comments on the preceding case and observations, Mr. Guthrie details the particulars of seven cases of wounded artery. We shall give a skeleton account of them. In the first the anterior tibial artery was wounded by a ball on the 16th of May. On the 15th of June secondary hemorrhage, for which the femoral artery was tied. Hemorrhage again took place on the 5th, 6th, and 27th of July—the limb was amputated, and the patient died. The muscles on the back of the leg were nearly gangrenous.

In the second case the wound was in the calf—secondary hemorrhage eight days afterwards the injection of the limb—femoral artery tied—hemorrhage again—amputation—death. The posterior tibial had been injured and sloughed.

In case 3, musket-ball passed through the thigh—aneurismal swelling—usual operation—matter collected in the thigh and a counter opening was made from which there was hemorrhage, which was arrested by pressure, returned, and amputation was performed. Patient died. The artery had not been wounded in the first instance, but become involved in the disease of the neighbouring parts.

In case 4, musket-ball entered a little in front of the left trochanter major, between the rectus and vastus externus, struck and flattened the os femoris, passed underneath the anterior edge of the glutæi and along the ilium for three inches, and lodged in

the posterior part of the belly of the *gluteus maximus*, from whence it was cut out next day. Much blood was lost at the time—on the 15th day violent hemorrhage from the posterior wound, which on the employment of pressure, continued going on internally, and produced an aneurismal swelling—on the 18th day another profuse hemorrhage—incisions made to enlarge the wound, blood sponged out, two large branches of the gluteal artery tied at each extremity by the needle, and a large vessel close upon the bone which had furnished the bleedings treated in the same manner. The patient nearly sunk from exhaustion during the operation, and died the next day. No adhesion of the parts had taken place.

In case 5, a musket-ball broke both bones of the left leg—incisions were necessary—erysipelas and hospital gangrene followed—about a month after the injury hemorrhage from a spot two inches and a half above the ankle-joint. The anterior tibial was tied an inch and a half above the bleeding part, and all did well.

In case 6, a musket-ball wounded the left femoral artery a little, below Poupert's ligament—on the 11th day slough separated from the wound with frightful hemorrhage. The external iliac was immediately tied with two ligatures and divided between them. Rigors, pain in the chest, and subsequently typhoid symptoms succeeded, but no return of bleeding; six days after the operation he died.

In case 7, a musket-ball entered the right leg in such a direction as to make it evident that it must have passed close to the posterior tibial and peroneal arteries, but no immediate hemorrhage ensued—thirteen days after the accident a considerable hemorrhage suppressed by the tourniquet, but shewing a constant disposition to recur. Next morning the limb was injected with blood, florid blood issued from both openings, and on passing the finger into the outer one a sort of aneurismal tumour could be felt, on pressing which against the fibula the hemorrhage, ceased indicating that the peroneal artery was in all probability the only vessel wounded. Mr. Guthrie cut down through the calf of the leg, found the parts in all states between sphacelus and perfect health, and after being obliged to make a transverse incision in addition to the longitudinal one of seven inches in length, succeeded in securing the vessel, but not separately, with a needle. The hemorrhage never returned, kindly supuration took place, and in three months the wound was entirely healed. The patient is now in the York Hospital, at Chelsea, and walks without appearing lame, although he cannot do so for any great distance. Having given the foregoing cases, which we have materially abridged, Mr. Guthrie proceeds to criticize

the opinions of Baron Dupuytren, as appended to the case of *M. de Gambaud*.

"In the remarks which I am going to make on the memoir and opinions of *M. Dupuytren*, I hope that I shall not deviate from that respect which is due to a foreigner and a gentleman of high and deserved reputation. *M. Dupuytren* is pleased to entitle his operation after the method of *Anel*, although it was not done according to the method of *Anel*, but after that of *Hunter*; neither, did *Anel* ever do an operation in the same place, or on the same principle. If the Baron had shown himself to be thoroughly acquainted with the principles that directed *Mr. Hunter* in the performance of his operation, I should have thought that the omission of his name might have arisen from a jealousy of his posthumous fame, unworthy of the elevated rank which *M. Dupuytren* himself holds in the profession; but it clearly arises from inattention to the principles laid down by *Mr. Hunter* and his successors, and to the difference which really exists between these operations.

It is also very extraordinary the Baron should say, as he does, page 22, that he had consulted in vain both ancient and modern authors on this subject, when the first and seventh of the cases I have given above were published, with several others nearly similar, in Paris, nine years before his memoir appeared, by *Breschet* in his translation of *Mr. Hodgson's* work on the diseases of arteries and veins. It is nevertheless very satisfactory that it should be so, because it shows that the practice which *M. Dupuytren* recommends to the French surgeons in 1828 as worthy of their adoption, had been tried in the British army in 1810 and 1812, and proved to be ineffectual, and to be founded on erroneous principles; whilst, in 1815, the true method of proceeding had been demonstrated by the same surgeons, and established on safe and scientific principles."

This may be an unpalatable dose for the able Baron: but it is one which the state of his case most imperatively demands. He on all occasions evinces either an extraordinary ignorance, or an overweening contempt, of English surgery and English surgeons, a trait which, however it may flatter the reputed vanity of himself and his nation, lays him open to ridicule and bares his side to criticism. What can be more absurd than the omission of the name of *John Hunter*, in connexion with aneurism and operations on the arteries? What can be more foolish than the attempt to pluck the laurels that time has immoveably carved upon his bust, in order to deck the brows of *Mr. Anel*? The attempt is alike unsuccessful and pitiful, and only redounds to the disgrace and confusion of him who makes it. *M. Dupuytren*



would appear to be like Horace, on his mistress' mention of his rival's rosy neck:—

—————Væ meum

Fertens difficili bile tumet jecur!

It gives us pain to allude in such terms to a surgeon of eminence and merit as M. Dupuytren, confessedly is, but when our country is tacitly decried, and her great men robbed of their due, it becomes us to stand forward and maintain their rights. We would willingly believe that the spirit too frequently displayed by M. Dupuytren is not shared by the more liberal portion of his countrymen. But to revert from the man to his doctrines.

Mr. Guthrie proceeds to observe, that the last passage in M. Dupuytren's comments cannot be admitted as a correct statement of the effects of a gunshot wound on arteries.

"I have shewn in the preceding observations, pages 231, et seq. what is the real effect of a ball on the extremity of a divided artery, and that the appearances depend very much on the size and structure of the vessel. In what manner a ball can contract (*froncer*) the orifices of an artery, has never been shown, neither can it be easily understood; inasmuch as the act of contracting must be a vital act dependent on the powers of the artery itself. If it be a mechanical act, arising from injury, it must be a contusion; and this surely cannot be advanced as a process likely to consolidate the end of the vessel; it being now well known and admitted in England, that the first and most simple state of adhesive inflammation is the best calculated for the permanent closure of a divided artery."

A torn, divided, or injured artery may suffer several different kinds of lesion; first, it may be only injured but not opened into; secondly, partly or entirely divided by a musket ball; thirdly, it and the surrounding parts may be torn and contused by a cannon shot. Thus in reference to the first point the elasticity of arteries enables them to yield to an opposing force without laceration, and to suffer a considerable degree of contusion without sloughing. In the case of captain Flack, several inches of the femoral artery were laid bare by a cannon shot, but it became covered by granulations, and maintained its functions unimpaired. If, however, the injury be considerable, a part or the whole of the circumference of the artery may ulcerate or slough.

If again an artery be completely divided, the appearances described by Mr. Guthrie in the commencement of this article will be observed. If only a part be torn, cut into, or slough, the patient will generally bleed to death, unless assistance be obtained; the musket or other ball having no effect on the walls of the artery different from any other instrument. Where a part of the

vessel remains uncut, the opening made by the sword or ball, if small, becomes round from the unequal contraction of the artery. If the vessel be merely slit up, the sides of the opening will come in contact, so as not to be very perceptible if the artery be compressed above, and no blood be allowed to pass through it. In such cases, of imperfect division, the only proper operation is to tie the vessel above and below.

When, in the third place, a cannon shot strikes a limb and bruises it most severely, without carrying away any part, the great artery may not only be ruptured in one spot, but its internal coat may be injured in several. In one case related by Mr. Guthrie, the posterior tibial and fibular arteries were torn across, and the popliteal was closed by coagulable lymph, thrown out from a rupture of the internal coat at this part. If an artery be wounded, in man, by a sharp cutting instrument, to the extent of one-fourth of its circumference, or even less, Mr. Guthrie believes, that the process of cure always takes place through inflammation, and by obliteration of that part of the canal of the vessel. In proof of this, he mentions a case of pike-wound, in the direction of the brachial artery, after which no pulse could be felt for some time at the wrist, and the pulsation of the brachial below the wound continues imperfect.

"I consider myself then warranted in saying, first, that when an artery is injured by a ball, but not torn or bruised to such an extent as to destroy the continuity of the vessel, inflammation is the only result; secondly, that when the artery is cut or divided, the process I have described takes place; thirdly, that in some cases, particularly where the injury is inflicted by cannon shot, the internal coat may be torn in one or more places above the part where it is divided, constituting a barrier to the flow of blood from the part; but it must be recollected that this barrier is formed at a very early period. I much doubt whether blood would pass through such an artery; I am sure that it would not do so twenty-four hours after the injury. The impulse or power of the heart or circulation is as nothing when the inner coat of an artery is injured, and has inflamed so as to throw out coagulable lymph. It invariably arrests the circulation, and obliterates the artery.

In all cases in which an artery is seen pulsating on the surface or other part of a wound, the obstacle to the bleeding is found to exist in the very extremity of the vessel; let only one-sixteenth part of an inch be cut off, and the blood immediately darts forth. I have done this fifty times at least,\* and it is

\*Dr. Guthrie, so far as we can judge from the paper before us, has made an important omission here, in regard to the repeated bleedings which take place from wounded arteries, and which have been described with so much effect by John Bell.

precisely the same from whatever cause the injury is inflicted.

A divided or cut artery, in a case of wound by a musket ball, is not in a more favorable state for healing without hemorrhage than from any other wound. In regard to the other observation of M. Dupuytren, that a gun shot wound has the remarkable property of concreting and coagulating, the blood in their extremities, in a greater degree than any other wound, it is contrary to every other fact I am acquainted with in regard to large arteries. The theory then which he would build on these opinions is untenable. If the wound had such an effect on the artery, why did it bleed at first? why did it continue to do so afterwards? I have shown that the lower end of the artery is more likely to bleed than the upper, and that hemorrhage does not always depend on the impulse of the circulation. It is certainly true that if the blood can be prevented from passing into the divided vessel, there will be a greater chance of the natural processes of inflammation and granulation, which are taking place in and round it, closing it up, than if the blood be allowed to flow through it. But it is only then a chance. It is impossible to calculate the time which nature may require to bring the blood, by the collateral vessels into either the upper or lower end of the vessel; it may not do so for hours, or for days; and on the speculation that it may not do so, the first hope of safety depends; the second, on the further accidental circumstance, that the end of the artery may be closed in the interval. Surely this cannot be considered a scientific operation, and fit to be erected into a precept in surgery, which depends on two accidental circumstances, neither of which can in the slightest degree be calculated upon.

There are many other reasons why the operation was a bad one in this case, and always will be a bad one in all similar cases. The patient was made to undergo the chance of mortification of the extremity, which it is probable would have taken place, if the operation had not been delayed until some days after the first hemorrhage occurred from the wound; which did not take place until the thirteenth day, during which time the inflammation in the limb had given the collateral vessels a disposition to enlarge. The wound itself was not treated as the principles of surgery require. A quantity of decomposed blood was pent up under and between the muscles of the calf of the leg, together with some of the patient's clothes, and some spiculae of bone. Surely in a case like this but without fear of hemorrhage, the Baron would have enlarged the wound, cleared away the clots of blood, and have placed it in a simple state. There cannot be a doubt on the subject, and the operation of

making an incision through the muscles of the calf of the leg would have enabled him to do all this, and to have secured the vessels, if there had been even four bleeding extremities, without any difficulty or danger.

The Baron Dupuytren applied Mr. Hunter's theory of the operation for aneurism to the treatment of a wounded artery, and succeeded by chance; others have done the same long before him; but nothing which is dependent on chance or accident can ever become a principle in surgery."

The theory, observes Mr. G. is not always applicable even when the wounded artery forms an aneurism, because the whole limb is not in the same state as one which has gradually become aneurismal from disease. A man, aged 24, was wounded in the thigh, on the 18th of June, and lost much blood. The wound healed, but an aneurism formed, and extended to within an inch of Poupart's ligament. On the 28th of August staff-surgeon Collier tied the external iliac artery, in the manner recommended by Sir Astley Cooper. The temperature of the limb shewed a great disposition to sink, discolored patches appeared upon its surface, and pain in the abdomen with inflammation of the wound succeeded. The patient was bled at three times to 36 ounces, the limb turned livid and vesicated, and on the 1st of September the patient died. On dissection there was slight peritoneal inflammation, and the whole limb was in a state of gangrene. The operator, says Mr. Guthrie, should either have cut into the sac and performed the old operation, or he should have tied the artery immediately above it. More anastomotic branches would thus have been saved, and mortification probably averted.

When a deep seated branch of an artery is wounded and continues to bleed, considerable difficulty often arises as to the best method of proceeding; because it is possibly an uncertain branch, and the facility of anastomosis must be taken into account. It is not good practice to cut down upon an artery on the first hemorrhage, unless the main trunk be wounded; for many a bleeding supposed to come from the great vessel, has been permanently stopped by a moderately continued pressure in the course of the vessel, sometimes combined with pressure, on the bleeding part itself. If, however, this be insufficient, Mr. G. would introduce his finger into the wound, and enlarge it until he could see to the bottom, or the bleeding part, when he would tie the two extremities of the vessel.

Hemorrhage may take place from an artery which cannot be tied at the part where it is wounded, as in the throat; and the question of placing a ligature on the main trunk comes under consideration. Mr. Guthrie details a case, in which both caro-

tid arteries were wounded by pins, purposely introduced on a cork, which stuck in, and produced ulceration of the esophagus. He also relates a case which occurred to staff-surgeon Collier, in which a spear wound at the angle of the jaw, was followed by secondary hemorrhage, and the common carotid artery on the same side was tied with success. He then adverts to the cases of Mr. Luke and Mr. Mayo, in which the same operation was successfully performed, for hemorrhage in consequence of ulceration of the throat.\* Our author was summoned to see a gentleman who had cut his throat very deeply, having laid bare the left carotid artery, and wounded the left internal jugular vein. The opening in the latter was distinct, and Mr. Guthrie ripped up the edges and included them in a net, without destroying the continuity of the vessel. The carotid appeared to be wounded as deeply as its inner coat, but no deeper. On the eighth day secondary hemorrhage took place from the artery, and Mr. Guthrie tied it below, and the external carotid above the wound; the bleeding ceased, but the patient died next day. The internal jugular was found pervious, and the internal carotid had a soft coagulum of blood for about a quarter of an inch. In a similar case Mr. Guthrie, warned by this, would place a ligature above and below the injury, to the outer coat of the vessel.

In all cases of hemorrhage from the throat, which cannot be suppressed without tying the carotid artery, Mr. G. would tie the external, as being nearer the bleeding branch. If this fails, he would tie the internal or common carotid also.

In bleeding wounds of the hand or foot, dilate the wound and tie the vessel, or if this is impracticable or unsuccessful, compress the principal trunks and the wound itself. The ulnar artery in the palm should always be tied when wounded, for the deeper seated radial, compression should be tried. If this be not allowed by the swelling of the hand, first tie the radial, then the ulnar, and if these operations fail, a clean and decided incision is to be made in the line of the wound, from the annular ligament to the finger (avoiding the flexor tendons,) and down to the metacarpal bone, which bone, and the finger are, *if necessary*, to be removed; by which space will be obtained to see the bleeding vessels. The hand or foot should only be amputated as the very last resource. Such are the rules laid down by Mr. Guthrie in cases of wounds of the hand or foot. Some very good remarks are offered on wound of the brachial artery in bleeding, and then the precepts already inculcated in different parts of this article are summed up together, in the form of 24 aphorisms or "conclusions." We wish we had space for their

\* We have given a full account of these and other cases in the *Periscope* of the present number, p. 200, et seq.

insertion. A chapter on aneurism by anastomosis, and one on the mode of performing the various operations on the arteries, conclude this valuable work.

Here we must end, not for want of matter, but deficiency of room. After the copious account we have given of a portion of Mr. Guthrie's book, it would be a work of supererogation to say that we think it deserving of very attentive perusal. Surgeons will derive much information and correct principles from studying its contents, which we recommend all to do. In our next number we shall analyze that portion which treats of the diseases of arteries.

**ART. V.** *Case of Nævus Maternus terminating in aneurism by anastomosis which was cured by operation.* By HORATIO G. JAMESON, M. D.

SUNDAY, JANUARY 23d, 1825. WILLIAM DALLAM's child, nine weeks old, when born had a nævus maternus, scarcely observable, on the left frontal bone, extending from about two inches above the brow, to the upper eyelid. The color soon deepened to a purplish red, and the colored parts rose gradually above the surrounding skin. Doctor Chatard, whose attention was now called to this affection, considered it, still, a simple case of nævus, and not likely to prove troublesome. It was soon found, however, that the disease was growing rapidly, and doctor Davidge was called in. In consultation, the above named gentlemen agreed to try astringent applications. Oak and Per-cimmon Bark, with alum, were used, but without effect; pressure was spoken of; but, as the lid was concerned in the disease, they supposed this remedy could not be employed. Doctor Davidge had decided that no operation could be practised, likely to afford relief. I am reminded of the method adopted by doctor Physic, of cutting round bloody tumors on the head, and thus cutting off their circulation, without removing the skin; and I still hope, it may not be too late to try this operation. The tumor seems to be principally supplied, by the superior superficial temporal Artery. The chief fear is, that, the arteries of the orbit of the eye may be involved in the disease; but, I expect that if the scalp was separated from the bone around the tumor, the ocular arteries would merely afford blood enough to sustain the flap, which I should take up, and, that the vessels of the tumor would be kept in a state of collapse, until the morbid circulation would be changed. It is the opinion of all, that, a tumor so rapid in its growth must soon terminate fatally. I requested a consultation, with doctors Chatard and Davidge, to morrow.

Monday 24th.—Consultation met at 4 o'clock, P. M. And the gentlemen readily consented to my proposal of taking up the scalp around the tumor. Agreed that I perform the operation to-morrow, at half past 12 o'clock. It was the opinion of all present, that the disease would soon prove fatal; and, that, under existing circumstances, any measures which afforded reasonable hope were proper.

Tuesday 25th.—I operated to-day, between twelve and one o'clock, present doctors Davidge, Chatard, Annan, Rogers, and Howland, one assistant was appointed to confine the body, by holding the infant upon a pillow, by the shoulders, on a table; another supported the head, with one hand under the occiput, and the other under the chin, embracing the chin between the thumb and forefinger. A third, placed a finger on the temporal artery; and, doctor Davidge having agreed to tie the arteries, I proceeded to the operation.

I commenced my incision immediately over the inner end of the brow, carried the knife to the bone, and swept it around, a little off from the circumference of the tumor, till I arrived at the inner end of the brow. This incision extended somewhat on to the parietal bone, and over the upper and anterior portion of the temporal bone. And, in order to include the disease within this circular incision, I had to carry the knife as low as the centre of the malar bone. One stroke completed the incision, excepting a part which lay over the temporal muscle, and temporal artery; the cellular structure was swollen and puffy at this part, and, consequently, the incision was required of greater depth. I, therefore, resumed the knife, and cut down through this additional thickness, and, indeed, went, intentionally, nearly through the temporal muscle, in order that I might more effectually cut off the circulation, and make the wound gape, so as to admit pledgits of lint.

The tumor became pale and shrunk; no blood flowed from the tumor after it was emptied; (this I consider favorable.) The main trunk of the temporal artery was under complete control, and, doctor Annan had to lift his finger to enable me to discover it. A small anterior branch, bled freely; and was first tied, then by raising the finger off the temporal artery, its mouth was easily taken on the tenaculum and tied. A pretty considerable hemorrhage was now observed on the upper portion of the incision, it seemed to issue pretty much from one point; a ligature was applied, but, now, we saw that a slight bleeding continued some distance along the cut integuments; it soon ceased, from rubbing a finger over the mouths of the vessels; these were obviously capillary arteries, taking on the aneurismal character. The insulated integument retracted; and a frightful

wound presented itself, exposing a large portion of naked bone. But, after applying small pledgits of lint around the circumference of the more fixed scalp, (so as to prevent healing by the first intention.) the flap, cut up, was made by means of adhesive strips to fit up well all around, to the surrounding integuments; a compress and roller were applied as usual. There was a considerable quantity of blood lost during the time of making the incision; but none from the arteries afterwards; the infant was much exhausted, and deadly pale. At 4 o'clock has rested well.

Wednesday 26th.—Child rested tolerably well last night; started now and then in its sleep.—Took the breast freely during the night, bowels freely open, pulse strong, and rather feverish. Afternoon. Skin natural, pulse frequent, but not tense; sucks freely, but has been fretful, and vomited once or twice. The swelling over the lid has subsided; but, the parts look sore and stick together. Advised small poultice of bread and milk, well greased with best lard, to be applied; and, if fretful, to give a drop or two of laudanum.

Thursday 27th.—Child was a good deal restless, had but little fever; troubled much with wind, and seems to suffer from colicky pains, sucks well. Advised tea spoonful ol. ricini; and, after its operation, a drop or two of laudanum pro re nata. Evening has been pretty easy; oil has not operated; advised simple enemata.

Friday 28th.—Rested tolerably last night; oil operated well; takes the breast freely; had been made to smile repeatedly and can open the affected eye; the affected lid continues swelled, and slightly red—Evening, doing well.

Saturday 29th.—Child is fretful; but little or no fever; the flap lies well up to the surrounding parts, but there is no union. The tumor is rather too red on its surface; in several places the surface is livid, showing, of course, a want of vigor in the circulation. The tumor is much lessened; did not take off principal strap; contented ourselves by removing the others, washing the parts clean, and reapplying the adhesive straps.

Sunday 30th.—Child was a good deal restless through the night; seems weaker this morning; suffers from colic; advised dose of ol. ricini; tumor over the eye seems stationary.

Monday 31st.—Child very fretful, but sucks freely. It had spasms last night, which abated upon giving two drops of laudanum; comfortable this morning, advised cold wet applications over the whole affected part.

Tuesday Feb. 1st.—Much improved, looks quite healthy; eye still swollen, and too red; upon removing the dressing, I found the flap disposed to shrink from the surrounding parts;



26th.—Convalescent—Keep within doors, and live on low diet. The cough still continuing troublesome, I directed moderate doses of paregoric and syrup of squills.

28th. Has been doing well till this morning, when he began to be exercised with religious notions—and has been praying, and making much noise, during the most of the day. Refuses to eat this evening. I find his tongue very foul and pale, pulse much agitated—he trembles, and seems very weak. In short, I think he is delirious. Advised epispas. to his neck; and to take a teaspoonful sp. nitre, and 40 drops of laudanum instantler; and repeat if necessary.

Wednesday 30th.—Charles rested well last night, this morning pulse feeble but not otherwise disturbed, tongue very foul. Evening about five o'clock became suddenly violently delirious, and could scarcely be held in bed, labored till he was quite exhausted. Advised dose of oil this morning which has operated well, and he was perfectly rational, and tranquil, during the day. Bled him now to  $\mathfrak{z}\text{xij}$ ; could not well obtain more, left him tranquil.

Thursday 31st.—Medicine operated well yesterday, but, in the evening, he became delirious, and by 11 o'clock he was quite outrageous; and, it required several persons to hold him. Skin cold, pulse small and feeble, gave him 40 drops laudanum with a teaspoonful sp. nitre; he became tranquil and remained so during the night. This morning quite tranquil; mouth sore from the calomel, in consequence perhaps, of cold wet clothes having been applied, for some hours last night. Believing that there was a very distinct remission I advised the bark. After taking two doses, before the middle of the day, he became delirious. I bled him  $\mathfrak{z}\text{xvj}$ . and advised quieting draught.

Saturday, April 21.—Rested pretty well last night, quite rational this morning, tongue rather cleaner, but still very foul; has a pain in his side, chest, and some increase of cough; pulse tense and quick, skin hot. Venesection ad  $\mathfrak{z}\text{vj}$ . Blood very much cupped. Advised dose of epsom salts. Evening pulse still a little excited, but his skin has been a good deal moist to day; his salts have operated well, I, therefore, advised rigid abstinence.

Saturday 3d.—Rested tolerably last night, took an anodyne draught. This morning pulse tense but small, complains of nothing but weakness, tongue still foul, no headach; slight uneasiness in his side, upon getting a deep breath. At noon he became suddenly delirious; saw him in two hours, refractory, and refuses to take his medicine; keeps calling incessantly on the name of the Redeemer, &c. Refused to be bled under an idea that it was intended to kill him. By a determined manner, and

partly coercing him, I succeeded in striking the vein; he now ceased all resistance, and as the blood flowed he gradually became quiet, and ceased to say a word, but he gave sensible answers when spoken to. The blood that was drawn yesterday was very sily and cupped. Advised in the morning, 10 drops of laudanum every two hours. Bled  $\mathfrak{Z}\text{xviii}$

Monday 4th.—Became violently delirious about 9 o'clock last night, speaking, halloing, and exerting his utmost strength; and refuses to lie down; imagines we want to kill him. At 10 o'clock, I took about  $\mathfrak{Z}\text{xviii}$  of blood—this had but little effect, blood was very sily; about twelve I bled him again, to the amount of ten or twelve ounces. He became every weak; but continued his incessant talking and extravagant gesticulations, till I had him held forcibly, with his head over a tub, and caused a considerable quantity of cold water to be poured over his head. The exhaustion, from over exertion, and the cold, together, soon rendered him pretty quiet; but, still, he could not sleep, and I understand this morning, that he slept very little during the night. This morning very much agitated, is pale, pulse feeble and hurried; skin cold. Opened the temporal artery; obtained only about half a gill of blood; this seemed to quiet him, so that we untied him before finishing the shaving, of his head; to which, and every thing else, he objected till he was tied. I applied a blister to the whole scalp—afternoon finding his pulse a little excited again, and a good deal of delirium, I gave two teaspoonsful of antimonial wine, with a view of exciting strong nausea; and advised a repetition. Late in the evening, found he had slept some, during the afternoon.

Tuesday 5th.—Rested pretty well, and is quite rational this morning; pulse tense and small; skin warm; tongue still foul. Blister drew well, stranguary has subsided. Advised abstinence, and antimonial nauseating doses. Evening still tranquil and rational; pulse fuller and softer, but pretty frequent. If there should be delirium, use the antimonials.

Wednesday 6th.—Had a good night; is perfectly rational; pulse a little excited; skin natural; tongue still foul. Advised 5 *grs.* calomel, every two hours till he is purged. Evening has taken but two pills, and has had but one stool; pulse feeble and rather frequent. Advised to quit the pills, and take a desert spoonful of epsom salts. Has taken some good chicken broth, which seems to have stimulated a little too much.

Thursday 7th.—Had a very good night, is perfectly sane, and tranquil—pulse a little frequent and small, but still tense; skin hot; tongue foul; appetite very craving. Advised small dose of

salts which operated well. Confined, during the day, to a little broth and gruel.

Friday 8th. Much better, rested well last night; pulse more natural this morning, than at any former time; appetite good; advised confining him to broth and chocolate.

Saturday 9th. Had some fever last night; free from fever this morning; complains of some sickness at stomach; supposed he ate too much yesterday. Advised dose of Castor oil. This evening has some fever, although the oil operated. Advised drinking balm tea.

Sunday 10th. Had some fever last night; says he feels better this morning than any time before; his tongue cleaner than I have seen it; pulse frequent, but soft. Continue low diet.

Monday 11th.—Much better, rested well, pulse natural except, perhaps, a little soft; no thirst; appetite good. Moderate diet.

Thursday 14th.—Better, but has some fever every night. Advised dose ol. ricini, in the afternoon.

Wednesday 27th.—Swelled legs; advised epsom salts, and crem. tart. to purge him gently.

Saturday, May 7th.—Charles complains still of pain in his side; and does not sleep well. R. pil. purgan. xvj. Three to be taken every night.

Tuesday June 14th.—Pil. Cathart. advised low diet.

Wednesday, July 13th. —Charles, still foul tongue, complains of slight fever, headach &c. Advised ingredients for bitters: rhub. camomile, columbo, each ʒij. carb. sodæ ʒss. pint boiling water, and half pint whiskey, two thirds of a wine glass. From this time, my patient went on to improve, and in a few weeks recovered perfect health. It seems proper to remark, that he had been in the habit of drinking pretty freely, but not to intoxication; so that his mistress was not aware of his having contracted such a habit. This we think will be considered an interesting case, in several respects, first we see a curious alternation of irritation and inflammation; and the same alternation between the affections of the chest, and head. Without a very close attention to the case, it may be supposed that the inflammatory symptoms were increased, and prolonged, by the opiates, but the cold skin, the moderate vascular excitement, and the uniformly beneficial effect of the opium, satisfied me, at the time, that, the period of irritation was more than unusually protracted; nor have I changed my opinion. While I believe that the opium did no harm, since it never disagreed with him; I fully believe he owed his recovery to the copious bloodletting. During most of the time there was a degree of prostration, and a deficiency of arterial excitement to a very uncommon amount. The

result proves, that the opinion which I formed of there being inflammation requiring free depletion was correct, since this patient was bled very freely, considering the indications for this remedy; which were never very evident. The case is well calculated to prove the safety, as far as it goes, of repeated moderate bleedings in inflammatory irritations; all was done that could have been done by local bleeding, or bleeding ad deliquium animi.

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ART. VII. *Remarks on dislocation of the Humerus into the Axilla.*

By SAMUEL ANNAN, M. D., *Extraordinary Member and formerly President of the Royal Physical Society of Edinburgh; Professor of Anatomy and Physiology in Washington Medical College, Baltimore.*

THE experience of most surgeons has taught them, that considerable difficulty is occasionally witnessed in reducing the humerus when thrown into the axilla. It occurs most frequently where the muscles are unusually powerful, and some time has elapsed before skilful attempts have been made to effect the reduction.

The three indications to be remembered in the reduction of dislocations are the following, viz: to fix the socket immoveably, or as nearly so as may be practicable; to relax the muscles as much as possible, by a proper position of the limb; and to draw the head of the bone in the direction of the cavity from which it has escaped. The first is accomplished by judicious counter-extension—the two latter by extending the limb in the most advantageous manner.

The older surgeons applied a counter-extending band to the axilla, and over the opposite shoulder; and to prevent pressure upon the pectoralis major, the latissimus dorsi and teres major muscles, put a large pad into the axilla, upon which, as they supposed, the band pressed; but it is obvious, that the pad being forced in between these muscles, and drawing the skin tight over their margins, they still sustained the counter-extending force; and being inserted into the humerus, the extension was also applied to them. It was farther discovered, that this plan only fixed the lower angle of the scapula, and even that very imperfectly, inasmuch as there was a tendency in it to move towards the spinous processes of the vertebrae, while the anterior superior angle was drawn forwards, or laterally.

The modern plan is to fix the scapula by means of a bandage, which allows the arm to pass through it. A girt, buckled on the extreme margin of the acromion process, so as to raise the ban-

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dage high in the axilla; or a towel, or handkerchief, put round the arm, so as to catch on the extremity of the acromion, are employed. The same objection still applies; they all act on the pectoralis major, latissimus dorsi and teres major, subjecting those muscles to both extension and counter-extension.

The extending force is usually applied in these intractable cases, by the compound pulley, with the arm at a right angle with the body. The intention is to draw the head of the humerus out of the axilla, and then, by placing the knee under it, and letting go the pulley, the arm being quickly brought down to the side of the body, it is expected the head of the bone will be pushed up into the glenoid cavity. The extension simply draws the head of the humerus out of the axilla; it is still *below* its socket; and the second movement, bringing the arm down to the side of the body, is to complete the reduction. But owing to the counter-extending, opposing the extending force, it is exceedingly difficult to move the head of the humerus so far out of the axilla, that it will not catch upon the lower margin of the glenoid cavity, and thus slip back to its old position, when the extension ceases, and the attempt is made to push it up into its socket: the elasticity and contractility of the muscles, also assist materially in replacing it in the situation from which the extending force had drawn it, their action being quicker than that of the surgeon in changing the position of the arm.

The muscles that require principally to be relaxed, are the deltoid, coraco brachialis, supra and infra spinati; the limb being lengthened, they are made tense, and their power of resistance increased. Now, it is true, that raising the arm to a right angle with the body, relaxes these muscles considerably, but not in the greatest degree possible; and in some cases it has not been sufficient; and to overcome their resistance, force has been applied, which has lacerated some of their fibres.

The only direction in which counter-extension can be applied, that it will not act upon any of the muscles to be extended, is from the top of the shoulder, obliquely downwards, to the opposite side of the body: a band, in this situation, will press upon the top of the acromion process, securely fixing the scapula; and to prevent it from slipping towards the neck, a strap should be buckled to it, passing under the axilla, round to the opposite side.

The scapula being thus secured, extension, could be applied upwards and outwards, or directly upwards, in a line opposed, or nearly so, to the counter-extending band. It is apparent, that the more the arm is elevated, the greater will be the relaxation of the resisting muscles; and it is equally clear, that in this way the head of the humerus is moved out of the axilla towards the

cavity from which it has escaped. Thus, by placing the patient upon a table, or on the floor, securing the scapula in the manner already mentioned, and applying the pulley above the elbow, and drawing the arm upwards and a little outwards, we fulfil all the indications. The socket is securely fixed; the principal muscles are relaxed to as great an extent as they can be, merely by position; and the head of the bone is moved towards its socket.

The only muscles, that will make resistance, when the extending force is made in this direction, are the latissimus dorsi and teres major, and the lower margin of the pectoralis major; but their power is not to be compared with that of the muscles thrown out of action by the great elevation of the arm. Indeed, the supra spinatus is more to be feared than the whole three. It is a thick, strong muscle, and being drawn across the face of the glenoid cavity, when the humerus is dislocated, and attached to the outer tubercle, it binds the head of the bone against the inferior costa of the scapula, and under the lower margin of the glenoid cavity; and has to be overcome by sheer force, unless the arm is greatly elevated.

In recent cases of luxation, if the patient is laid upon the floor, the foot placed against the top of the shoulder, and the arm drawn upwards, less difficulty will be experienced than in any other mode of reduction.

ART. VIII. *Observations on the pathological sympathy between the nerves of the eye and the larynx.* By HORATIO G. JAMESON, M. D.

I have occasionally seen cases tending to show a strong sympathy between the throat and the eyes, among cases of this kind, I deem the following worthy the notice of the profession, and, we have no doubt that it is only necessary to awaken attention to the subject, in order to bring many facts, similar to those I am about to notice, to light, and to found indications of cure upon this sympathy. which so obviously exists sometimes, between the larynx and the eyes, in a morbid state.

In the fall of 1825, I was unfortunate in being subjected to the malaria, of what is called a neck, upon the shore of the Chesapeake bay. It proved to be of malignant character, and after much protracted suffering, I recovered although I was considered incurable, by my friends and physicians. Sometime in the third or fourth week, there was a sort of stationary period, when it could not be decided whether I was growing better or

worse—among the more annoying symptoms, which now attended the case, was one that existed during the greatest violence of fever, which had previously existed; that is, a play of every kind of complex machinery; revolving, rebounding, whirling, &c.; and the appearance of tens of thousands of every kind of living creatures, of every kind I had ever seen; and, many more wondrously strange than any that ever were created. During the greater violence of the fever, these were of a most terrific aspect, sometimes mixed, and sometimes rather pleasing, from the harmony of motion, or the beauties of symmetry, of form, or of color. As the fever wore off gradually, these illusions became more and more agreeable; but they still annoyed me by their tiring constancy. Such was the predominance of this symptom, that I recollect remarking one day to my friend doctor Chatard, that, I had hopes of there being a slight abatement of the disease, since, notwithstanding that I was still incessantly annoyed by those illusions, they had been for the last twenty four hours quite pleasing—but, my dear sir, said my good friend it will be better when you shall not see any thing of this kind. This symptom, indeed, was so strong for two or three weeks, that, it almost entirely deprived me of sleep, such was the rapidity of motion, such the change of color, of shape, and of creatures, and objects, and sounds, &c. &c. that I could not sleep.

I well recollect one night that, having an agreeable friend sitting at my bed side, I prevailed upon her to enable me to keep awake during the whole night, to avoid this annoyance. The next night I again endeavored to remain vigilant, to do which, it was necessary to keep my eyes open. But they soon became too heavy and disabled, by the effort that was necessary to keep them open, so that in spite of all exertion the lids would fall down once, perhaps, in every minute or two, upon the lower lids; no sooner were the eyes closed, than I was beset by people, creatures, machines, voices, music, whirling wheels, spiral wires, the various articles of stores, &c. Lying in a sort of reverie, with one kind friend, I began to reason on the case; and to endeavor to find out the cause of this trouble, in order that I might find some expedient for temporary relief, from the distress which now sat upon my eyes; I was led to conclude, that, this symptom, while it depended, mainly on the state of the brain, for its existence, that, nevertheless, there might be a degree of undue excitement in the nerves of the eyes, that, possibly I might, by means of cold locally applied, cause the undue excitement to retire; and enable me to keep up my eye lids, if I could remove the illusions; for these, indeed, only troubled me, when I shut my eyes. With the hope of accom-

plishing this object I obtained from my friend, rags folded, and wet in cold water—the moment they were applied, I coughed pretty smartly, in consequence of a sudden irritation felt at the upper end of the larynx, this was repeated perhaps ten times, and, at each application the coughing was so considerable, as to render it too unpleasant to continue the application. In short it could not be borne; and I was compelled to bear the disturbance of the imagination, though truly distressing.

A short time before my attack, I visited, in consultation with my good friend, doctor Mackenzie, his son doctor George Mackenzie, then a lad, in a case of putrid sore throat; and from which he very narrowly escaped with his life. He, however, survived the disease, and as he convalesced from the sore throat, he now began to complain of an impairment of vision, it is true, however, that there was some defect of power in the lower extremities; so much, at one time, as to disable him from walking. When I had recovered I found this young gentleman quite amaurotic, with pupils widely dilated.

His father had used various remedies, of the particulars of which I have no recollection at this time; but, we agreed to try a mercurial course of treatment; and to apply a blister to the throat, over the larynx. This of course was done in consequence of the sympathy which I had found between the eyes and the larynx, in my own case; and, indeed, there was an additional foundation for this opinion, in the fact of amaurosis having been preceded by a very violent affection of the whole upper part of the throat. The good effects of this remedy were speedily visible, and my amiable young friend speedily recovered perfect health.

It will not appear strange to the anatomical reader, that there should be this sympathy sometimes, attending the eyes and larynx, the plentiful supply of nervous structure, in both these organs, is well calculated for that end; and leads occasionally, to great degrees of morbid sensibility. Besides, these organs are not more remarkable for their abundant supply of nerves, than the peculiar mode of connection of nerves, though slight, about the temple. The fact that the ordinary sensibilities, and powers of the eye, as a living and motive organ, depend upon the common nerves, and not upon the optic, is no objection to the opinion we have formed, as to the pathological sympathy noticed between the eye and the larynx, since many cases could be mentioned wherein injuries of the common nerves, in or about the eye, have disturbed the power of the retina. I shall briefly notice a case; it is however so interesting that we may perhaps, hereafter, make it the subject of remark in this Journal, we have forgotten the minutiae, but have been



promised the particulars, by our friend doctor March, of Baltimore County.

A young woman of respectable family, was stung on the face, just below the left eye, by some one of our stinging insects, (kind not recollected,) a few days afterwards her vision gradually failed in that eye, and presently in the other also.—She was now desired to take my opinion, by her physician, which was expressed to him in writing, but I do not now recollect what was advised; I distinctly recollect that the pupils were distended enormously, and that she was totally blind. A few weeks since, I saw doctor March, and learnt, of him, that her sight had been recovered; and he promised that when he came to town again, I should be furnished with the particulars. I also perfectly recollect another case, in point, a young man had a brick bat thrown with great violence against his eye. There was violent contusion, and consequent discoloration of the surrounding parts, as well as much turgescence of the vessels of the conjunctiva, &c. The injury, or morbid action, reaching the optic nerve, or retina, the pupil became greatly dilated, and vision was soon lost; a physician who was now called in, viewed this, I presume, (from the treatment he employed,) as being what is called a nervous affection, and, that therefore, a stimulant plan of treatment should be employed. When I saw the case the pupil was greatly dilated, and so insensible that he could look at the sun with this eye, without any uneasiness whatever. I instituted an antiphlogistic course of treatment, viewing the whole disturbance as the result of the contusion—after bloodletting, leeching, and other active antiphlogistic remedies had been used, a few days, the retina began to recover its sensibility; and very soon there was very considerable intolerance to light. As the inflammation abated, the vision returned gradually, and I had the pleasure of seeing this young man, in reasonable time perfectly restored to sight, in the eye which had been thus deprived of its visual power, by an injury to the common textures, and common nerves.

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ART. IX. *Observations on Occult Syphilis.*—By Doctor Böhn, of Berlin, Germany.

The following observations are translated from the "Litterarische Annalen der Gesammten Heilkunde;" edited by Professor Hecker, of Berlin.

In the treatment of this Proteus-like disease, every experienced physician will have seen cases of this kind. I have thought proper to communicate the following.

Astruc and many later writers assert, that the brain, and the nerves are never affected by syphilis—experience has taught me the contrary.

A young man, after unclean sexual intercourse, had a small excoriation on his penis, which he did not consider to be venereal, nor requiring particular treatment—it healed up of itself in a few days. A short time afterwards, however, he had venereal itching and warts about the fundament. These affections required a few grains of sublimate and local applications. He considered himself now entirely well, except that he was plagued with rheumatic pains, and blind hemorrhoids; both which affections he had often suffered before the syphilitic taint. These things concerned him but little; but the rheumatic pains in the muscles and in the bones, plagued him in the day time only. After some years, he was attacked suddenly with Blepharoblennorrhoea, with which he had been affected once, before the first syphilitic taint. This was soon accompanied with iritis, which by the peculiar distortion of the pupil was considered syphilitic iritis; and was cured by an ordinary course of mercury. There followed now apparent good health, for three-fourths of a year; with the exception of the old rheumatic and hemorrhoidal affections, which returned from time to time. But, suddenly, his sight became impaired; for this, which was followed by paralysis of one side of his body, bleeding was ordered; and he was afterwards seized with apoplexy.

In addition to many leeches, large doses of calomel were given as an antiphlogistic means, by which a severe salivation was excited, and the paralysis in the remarkably short time of three days disappeared. No one then believed, that this affection was caused by syphilis and yielded to the calomel. Now, again, good health returned, as in the earlier stage of the disease. After a lapse of three-fourths of a year, a remarkable nervous affection made its appearance; namely, an entire loss of sleep, which yielded to no remedy. This was accompanied by the most violent headach, if he tasted any thing, whatever, in the course of the day; it could only be avoided, by taking nothing, except thin soup.

Butter and bread, eaten in the morning, caused the same affection as the most copious repast. This condition lasted about a year; and he assured me, that during that period, he had never slept more than a minute at any one time. Nothing in the world could effect more than a mere alleviation of the disease. He grew pale, and from his long abstinence; and want of sleep, became hypochondriacal, and weary of life. He received the advice of many experienced physicians, but no one could do more than mitigate his sufferings. Finally, a suspicion arose in my mind, whether the malady might not be of syphilitic ori-

gin; and, indeed, this suspicion was grounded on the series of appearances already noticed, and the rapid cure of the apoplectic affection by calomel. When I proposed to him the dietetic plan of treatment, by way of experiment, he was ready to undergo it; since he had tried almost every thing that could promise any relief. This plan of cure was tried, by which a very copious salivation was produced, but immediately after it, his situation was almost the same as before. He dare not eat any thing unless made thin; nor any thing very nourishing, if he did not wish to gratify his appetite at the expense of a most distressing headach. On account of this, he commenced a milk diet. He soon began to enjoy sleep, and after about four months, he made use of some food by way of experiment; and the headach did not return. Rendered bold by this, he ate more frequently; finally, regularly, and has recovered such health as he never enjoyed before. He was now a healthful and cheerful man, and could not sufficiently thank me, for advising the dietetic plan of treatment.

Amaurosis is not unfrequently a form of occult syphilis; a case of which I will relate.

Mr. F. a young man, about 33 years of age, contracted gonorrhea, with which was associated an excoriation on the prepuce. I did not give him mercury immediately, as experience had taught me, that very many forms of syphilis, and particularly its primary symptoms, were cured without the use of mercury; and, moreover we know that the use of this remedy in the primary symptoms, by no means prevents the secondary, as we shall soon see, from cases about to be reported. He was displeased at this, and went to another physician who gave him mercury forthwith; and as I believe, without the caution to advise the necessary restrictions. The excoriated places soon healed, but pain was felt in the throat in deglutition which affection taken for syphilitic inflammation, was likewise treated with mercury. The affection of the throat soon appeared to be cured; but returned from time to time; and the patient had great apprehension concerning another expected evil. During this time there came on a gradual loss of sight, and, particularly, remarkable in one eye; so that the patient, who, otherwise, saw extremely well, could perceive nothing at a distance: his eye was soon fatigued in reading or writing; and finally, he was compelled to give up every kind of business. Yet, nothing was to be seen in either eye.

Mercury was freely given internally, with applications of antimonial ointment over the eyes, by means of a hair pencil, and a portion rubbed into the angle of the lower jaw, but all in vain. In this situation, I saw him again; and considering his disease a combination of an unsubdued syphilis, and a mercurial affection,

which was referable to the liberal, and injudicious use of mercury; I put him on the dietetic plan, which he underwent willingly, and was perfectly cured by that means.

I saw a case of a similar kind about six years ago. This was that of a frail man sixty years of age; who, afflicted with some other diseases, sought my aid on account of amaurosis, which, had formed about a year since, in both eyes. He had made use of, in consequence of the long duration of the disease, almost all the remedies which had ever been recommended by physicians for such diseases. I learned from him, that in former times, he had received a syphilitic taint, for he had suffered constantly with gout, hemorrhoids and eruptions on the skin, which shifted about: and finally, to these affections there were added amblyopia and amaurosis. I considered the last affection as syphilitic; and, indeed, I was prompted to the opinion by the uninterrupted series of before mentioned appearances. I confess candidly, however, that, I hold it impossible, that after syphilis has been perfectly cured, it should re-appear after the lapse of years: as disease cannot exist in the human body, without showing itself by some symptoms or other: at least experience has not yet taught me its possibility, in despite of the treatment of very many venereal cases; and, so may the adoption of this opinion be founded upon the designed deception of the patients, who, have an interest in concealing the new cause of their complaint. It was a pity that in the before mentioned case, the constitution of the patient was that of a declining old man of sixty years, who had a troublesome cough; and sometimes spitting of blood, which forbid the employment of the dietetic plan of treatment, by which, he could have expected a complete cure.

I would wish in this place to make an observation, by which the diagnosis, now conjecturable, would become fixed, and the existence of the disease known.

M. a young woman of irreproachable character, had married the preceding autumn, just as she had reached her 24th year. About a year before, symptoms of a disease about to be related, made their appearance. She had been remarkably healthy till her 23d year; had never been affected with scrofula, and had menstruated in her 17th year: at the before mentioned period, the glands under her chin and in different parts of the neck began to swell, and the sternal end of the clavicle became enlarged. A cough soon united itself with the affection; but, it was not constantly present. Her betrothed husband was now informed of her situation, and consulted me concerning the state of her health, yet, without imparting to me any thing in reference to the swelling of the clavicle, which was unknown to him. I did not delay to remove all apprehension as to his bride's state of health;

for no one would consider a slight swelling of some glands in the neck, and a cough, which after continuing some days, disappeared for weeks and months at a time, as a dangerous affection. She was at first treated by another physician; but for the present she was handed over to me. Her situation soon grew worse, the glands began to be painful and caused fever; both fever and the pain, however, left her after the employment of leeches. Inflammation of the lungs supervened, which was cured by the antiphlogistic plan of treatment, and she again recovered good health, in which state she did not delay to get married. But she was soon sick again; the fever returned with morning sweats; the cough continued with discharges from the lungs, the glands grew larger and caused much pain, yielding no longer to leeches; and the fever appeared to be dependent particularly upon the disease of the glands, as it plagued the patient more, when the glands were painful; at the same time, the sweating was greater. The enlargement of the clavicle became now known to us. Under these circumstances as the patient was strikingly emaciated, there could be no longer any doubt as to the nature of the disease, although there were some circumstances which militated against the opinion that her disease was consumption. In the first place, the dependence of the fever upon the diseased state of the glands; and then the patient, after many other remedies had been used in vain, derived decided benefit from the internal use of iodine. This relief, however, was of but short duration, but there was certainly no appearance of a pure phthisis. This circumstance, the enlargement of the bones, the development of the glands, a year after puberty; the complete absence of all symptoms of scrofula in childhood, caused me to believe that in despite of her perfectly irreproachable character, it was a syphilitic taint; perhaps, received through a kiss, which might have afforded the basis of the disease; and, this opinion of mine was adopted by several of my colleagues, and another physician who had first treated her. Under the conviction that if the disease was suffered to run its own course, it would certainly destroy the woman's life, I proposed the dietetic plan of treatment. She entered upon it willingly, and I intended to suffer only a moderate salivation; and to discontinue the entire remedy, at the slightest unfavorable symptom. She bore it well, and there was not the slightest impression made upon the mouth or the salivary glands. The diseased glands disappeared in the beginning, so that I entertained the best hopes, that a perfect cure would be the result.

In this expectation I was however deceived. The patient experienced no benefit from the remedy, but was remarkably emaciated and the menses were suppressed. The glands

again began to swell, and the enlargement of the clavicle became greater, and there was an appearance of abscess in the bone.

The patient went into the country, and put herself on a milk diet, and used a decoction of the Iceland moss, but the fever again returned, and soon became fixed. She had regular morning sweats, the swelling of the clavicle and the glandular tumors became larger, and the sternal end of the other side began to swell, although in a slighter degree than was the case with the first. The emaciation increased, and a canine appetite came on, and after its appeasement, she had to contend with the most frightful anxiety. After repeated diarrhea, and after the feet had become swollen, she died about four months after the use of the remedy had been discontinued.

The dissection showed both clavicles changed into a thick white mass, partly of a fatty substance, partly cartilaginous; the glands had run together, and one could not distinguish organs, bones, or glands. Similar swellings of the glands, though smaller, accompanied the thoracic duct, on both sides of the aorta. The right lung and part of the left had wasted away; and a peculiar disorganization had taken place. They were converted into hard masses, which were almost as hard as stone. The stomach was much distended; but all the other organs were sound. The dissection also showed, that the origin of the disease was in the bones, which had extended to, and embraced the lymphatic glands of the neck and both sides of the aorta. To all this consumption of the lungs had associated itself.

A similar case of (*occult*) syphilis, showed itself in the form of *tabes dorsalis* and spasms. H. N. 34 years of age, had nine years since a chancre on his penis, which had been cured in four weeks, by the ordinary mercurial treatment; but afterwards he had rheumatic pains, sometimes in one part, sometimes in another; and for the last three years, weakness and pains in the lower extremities. This affection soon increased, and took on the *tabes dorsalis*, although his youth, and early mode of life, gave no cause to suspect the approach of such a disease. This affection appeared from time to time, and particularly at night, combined with epileptic convulsions. As all the remedies resorted to produced no good effect, it was suspected that syphilis was the cause of the disease. The *dietetic cure* was resorted to, and with so good a result, that the *tabes dorsalis*, epilepsy and rheumatism disappeared; and the patient, who was not able to move a step in his room, in a few months walked through the street, firmly and rapidly.

In another man syphilis caused marasmus of the liver. H. forty years of age, had five years before a chancre, which was cured by the ordinary mercurial treatment. Soon after the cure, eruptions made their appearance sometimes on the calves of the leg, sometimes on the back, but as they did not incommode him much, no particular form of treatment was resorted to. Disease of the liver now made its appearance—there was loss of appetite; a bitter taste in the mouth, and a yellowish fur on the root of the tongue. The liver became painful and swelled. The pain was at first darting, but afterwards became of a throbbing character. Fever supervened, which came on every evening, and terminated in morning sweats. There was pain, particularly at night, in the right shoulder and right leg. Diarrhea made its appearance—the eyes were of a yellowish color, and he became emaciated. The urine from the time that the pain was of a throbbing character, was thick with a pus-like sediment. In this situation he came to Berlin: the above mentioned eruptions, which had appeared after the healing of the chancre, led one to suspect that the disease was of a syphilitic origin; and as the disease was of so long a continuance, that the patient appeared to have no chance of recovery, the *fasting cure*, with mercury was recommended by way of experiment. It was tried, and the patient was cured, both of the liver affection and the eruption.

The hereditariness of syphilis, is a matter of doubt with many physicians. I do not think I deceive myself in believing in the affirmative; and will relate a hereditary case of a child which I saw, who was affected with the disease in the first month of its life, deriving the disease from the father.

H. V. U. came to Berlin without his wife, and received while here, a syphilitic taint, from improper connection. The chancre which he received, yielded to the mercurial treatment; and a few weeks after being cured, his wife also came here. She soon became pregnant, but showed no symptoms of being affected with syphilis. The little girl she gave birth to, and afterwards suckled, was perfectly healthy, during the first three weeks of its life; when it was affected with a great many sores, particularly about the anus and pudendum; and an eruption on its legs of a red coppery color, combined with a catarrh which obstructed breathing, and a remarkable discharge of scurf from the nose. Many remedies were tried without any benefit, so that in consequence of the remarkable appearance of the sores, I determined on administering mercury. Improvement followed quickly, and within three weeks a perfect cure, with the disappearance of the symptoms. This case was inexplicable, as

the taint went from the father to the child, yet at the time the child was begotten, every trace of the disease had disappeared, and the mother also remained unaffected.

[Our more intelligent readers, will not recognize any thing particularly new in the foregoing narration of cases, but we have deemed them of sufficient importance to our readers, as a specimen of German practice. In addition, however, to this consideration, we think that this paper is well calculated, to awaken attention to a much neglected subject. We are quite confirmed in the opinion, that, much that passes now a-days for scrofula, is occult syphilis; and we are well persuaded that a careful attention to this subject, would enable us to detect diseases viewed as scrofulous, but which, in reality, are occult syphilis.

We are among those who believe that *pure syphilis*, that is, syphilis presented in the symptoms proper and peculiar to the disease, is curable with almost unerring certainty by mercury; but we do not doubt that some of those cases are curable by other means. We are, however, equally aware of the fact, that there are many erratic cases of this disease, presented in a milder aspect than pure syphilis, in which mercury will, and has done much harm; on the other hand, there are many erratic cases, again, wherein mercury will do no harm, where the origin is syphilitic, and the symptoms more aggravated than those of pure syphilis. This opinion would seem to be at variance with a philosophical view of the subject, on the commonly assumed ground, that every cause will produce its specific effect. But, we think that it must be admitted, that medicine has its own philosophy, a part of which, most obviously is, that similar causes do not always produce similar effects; and, our experience leads us to believe that, in no department of medicine, is this more clearly manifested than in syphilis; and hence, no doubt, the contrariety of opinion, and of practice in this disease.

The present writer is reminded of a very warm, able, and interesting discussion, on this subject, which he heard in the Hospital at Hamburg, between professor Rust of Berlin, and doctor Fricke of Hamburg. These two gentlemen, alike distinguished for their eloquence and their zeal, and warmth of argument, canvassed this subject two or three days in succession. But, we were led to conclude, that in this instance, as in most of a similar kind, the parties were more inclined to refute the opinion of their antagonists, than to illustrate and support their own. While professor Rust contended for the universal and free use of mercury, doctor Fricke as warmly advocated its total disuse. The professor took much pains to prove that the very considerable number of cases that were presented to him



in the Hospital, were not genuine syphilis, and in this opinion we fully concurred, with one exception in the male ward. We shall, however, decline entering into a general examination of this subject at this time; and wish merely to say further, on this point at present, that we believe, as we have already intimated, that neither party are exclusively right; and we shall defer, for a future occasion, our observations on this highly important subject; important as well on account of its proteus-like nature, as the great contrariety of opinion among the profession, by which the young practitioner is bewildered.

In support of the intimation which we gave of the value of the observations of doctor Böhr, we will detain our readers with the particulars of a very interesting case, which came under the notice of the present writer.

A gentleman of irreproachable character, and advanced a little, perhaps, beyond the meridian of life, consulted us respecting a considerable impairment of vision. Upon examining his eyes, the pupils were found greatly dilated, and having a very dull aspect, obviously showing that the retina was much disturbed in its economy. From the detail of the case, we learnt that our friend doctor Wm. H. Clendinen, the family physician, had been consulted; and, upon the whole we considered the application to us somewhat irregular; we, therefore, advised a consultation with that gentleman. From him, we learnt that, the patient, though for a long course of years, quite above suspicion, had nevertheless, many years before, been effected with syphilis; and it was his opinion, that a taint of this kind was the cause of the disease of the retina, concurring in this opinion, upon his suggestion, the patient was treated with mercury, and recovered with a rapidity that fully confirmed us in the accuracy of doctor C's opinion. We had here equal proof of the sound judgment of our friend, and the occasional hidden nature of syphilis, several years have elapsed, and the patient retains good vision.]

## BIBLIOGRAPHICAL NOTICES.

**ART. I.** *A Treatise on the nature and cure of those diseases, either acute or chronic, which precede change of structure with a view to the preservation of health, and particularly the prevention of organic diseases.*—By A. P. W. PHILIP, M. D. F. R. S. &c. &c.—With notes and appendices,—By J. H. MILLER, M. D. Professor of the Institutes, and Practice of Medicine, in the Washington Medical College of Baltimore.

Upon seeing the publication of this work announced, we felt no small share of pleasure in the anticipation, that something important had occurred to induce this distinguished author to appear again before the public. When we had read the title page, our expectations were greatly heightened by observing, that the writer had laid open an entirely new field for cultivation, and we are ready to believe that, it will lead to much improvement in the practical part of our profession.

It so happened however, that before we had read the book, we fell in with the severe strictures upon it, in the London Medico-chirurgical Review. Upon an examination of the work, and the London Review of it, we have been led to conclude, that while on certain points the strictures are perfectly just, nevertheless, there are some points connected with the work of doctor Philip of great importance, which the reviewers have either overlooked, or view in a very different light from us. This being our opinion, we have deemed it best to examine a portion of the text, and of the strictures, and offer our reflections upon both.

We would remark, however, that we do not purpose going into a general analysis of the work; we shall confine our remarks, both as regards the text and the comments, to the article of *diseases of the lungs*, excepting only some of the observations in the "Preface and introduction; and strictures upon the observations contained in those chapters.

"**PREFACE.** The following treatise is written on the same plan as my treatise on indigestion. I do not offer it to the members of the profession as a regular treatise on the subject, or as comprehending all its parts; but merely as the result of my own experience, not during a few months or years, but nearly half a life time; and I believe a physician, who has been long engaged in practice, cannot better promote the objects of his profession, than by simply relating, with accuracy, the facts he has himself observed, and the reflections they have suggested."

We are not disposed to call in question the veracity of our author, when he says the work before us has engaged his atten-

ease, will make a restless patient, and makes his physician an apothecary in fact. And if people do not read upon medicine at all, they will always fall into the vulgar belief in specifics. We therefore, are not disposed to condemn in toto popular works upon the more simple diseases, and the application of a few of the more common remedies. Nor does it follow, that because a man has a little knowledge of medicine, that he is to be his own physician. On the contrary, we believe that a tolerable acquaintance with medical science, will deter from meddling much with the practice. But the man who believes in *specifics*, will feel little apprehension in using what is represented to be a sovereign remedy, as is the case with all popular remedies.

As regards the work before us, these remarks do not apply; doctor Philip undertakes to explain vital laws, functions, structures, &c. to general readers, and, yet, it is well known that the occurrences of every day expose our deficiency of knowledge on these subjects. But more especially we are not only surprised, but disappointed, and, "sorely vexed," at the very extraordinary attempt of doctor Philip to instruct general readers, in a branch of learning in which he is himself a novice, as his work but too plainly manifests. As we have already said, it is a new and barren field, but one worthy of our highest regard and most zealous efforts to improve. The book so far from being likely to instruct the general reader, will only reward the medical reader for the perusal. But still we think the profession should hail it as a most important offering. Our author we believe, to be a mere pioneer, but this is a post which may confer immortal honor, and for ourselves we think doctor Philip has done the profession an essential service. His having directed his book to the wrong portion of mankind should not condemn the work; though, as there appears to be a good deal of quackery in having done so, we think he fairly merits the castigation which has been inflicted. Doctor Philip has opened a new port, let us endeavor to enter the citadel, and direct our attention with renewed zeal to that department of medical knowledge, which would teach us to check disease in its march, but treating it as a martial foe, let us not suffer it to locate itself behind or under cover of *impenetrable rocks!*

The peculiar condition of the system which doctor Philip attempts to illuminate, is very happily expressed, in the following note of professor Miller, page 18.

"In the present work of our author, he has taken new ground, and laid his location warrant upon that intervening and nearly unoccupied region between Hygiene and Practice. Systematic writers generally have confined their "Art of Preserving Health" to didactic precepts for the avoidance of the causes of disease,

and their practical rules are mostly predicated upon full formed disease, as existing upon change of structure. All that large space between the first morbid impression, disturbing the functional action of an organ, the influence of this perversion upon others, from organ to organ, or system to system, till some one becomes involved in structural lesion, has engaged so little attention, that the student may look in vain to his library for the features and characters of disease in its "forming state," as it has not inaptly been denominated, or what perhaps we might with propriety call its *curable* condition; because, although recovery is not impossible after change of structure, the chances are diminished in proportion to the importance of the organ, and even in the most fortunate instances there remains a debility and consequent liability to a recurrence; whereas it may be affirmed that any disease is under the control of remedies whilst it is confined to functional derangement.

At no period has it been more important to direct or reclaim attention to these states of disease, than at present, whilst the rage for morbid anatomy, stethoscopy, &c. is turning the medical mind to the exclusive consideration of altered structures. The direct tendency of these fashionable pursuits is to the overthrow of all useful pathology. They may instruct us when a disease is incurable, and show the amount of disorganization productive of death, but they fail to impart a knowledge of the several steps in the progress of disease from its inception to its fatal termination. They cannot even instruct us how far change of structure may progress without inevitably fatal consequences, much less can they inform us of the means of avoiding the dire catastrophe. These necrological observations, or "meditations on death," make baneful impressions upon the tyro in medicine, by associating post-mortem appearances with every stage of the disease, and prompt him to prescribe for conditions of parts which have not yet occurred. As much injury may be thus done by injudicious anticipation, as by the most blameable neglect. We are not inimical to autopsia cadaverum, auscultation or any other means of benefiting our science, however little or remotely, but we do deprecate the neglect of the earlier stages, which permits it to gain ascendancy and become formidable, for the honor of a fiercer conflict and more doubtful success. It is much better to be able to obviate or remove numerous cases of commencing disease, than occasionally to pronounce an astonishing prognostic, or perform a "wonderful cure."

**REVIEW.**—"Doctor Philip forewarns us that he shall indulge

in no speculative doctrines, but wholly confine himself to facts which came under his own view, and the necessary inferences from them. Under this last title, the author knows well that he may speculate as widely as he pleases. He "avoids the narrative of cases"—though these are the most substantial kind of facts, and as the purposes (of this treatise) would be very imperfectly answered, were it not made intelligible to the GENERAL READERS, he shall, as far as he can avoid the use of technical language." And has the lecturer, the experimental physiologist, the long established practitioner, the wealthy and independent physician, condescended, at his time of life, to throw aside the language of medical science, to turn his back upon the profession, and address the mob? For the avowed purpose of enabling general readers to comprehend all that he has written on the vital functions, on digestion, &c. in the present treatise! yes! To make the non-professional public intimately acquainted with the symptoms, and the treatment of those obscure, proteiform, and almost incognizable deviations from sound health, or approaches to disorder, which often cloud the eye of the most observant physician, or baffle his skill when detected, is the professed object before us."

However much members of the profession may differ as to the amount of medical knowledge, which should be possessed by the general public, which would be most conducive to the general welfare, and to the interest of the profession; we believe most of the unprejudiced of the profession will think, with the review, that the obscure and peculiar condition attendant upon incipient diseased action is too difficult for vulgar comprehension; and not an unfrequent stumbling block to the most experienced physicians.

We are not a little surprized at the fact, that doctor Philip professes to found his claims to public favor, on his experiences, and "facts;" to the exclusion of information from other sources; and that he does not illustrate more or less, by means of *cases*, which he tells us he withholds, and which the able reviewers say, "are the most substantial kind of facts." For our own part we are decidedly of the opinion, that nothing can so well serve to illustrate what doctor Philip has attempted, as cases carefully traced and faithfully reported. It is our confirmed opinion that, this is not only the most difficult task in this new field of exploration, but that our author was not prepared with cases to illustrate his views on the point now before him. It must be evident to every sensible medical reader, we think, that whatever may have been the talent for correct observation, at the bedside, no physician who makes his diary for the ordinary

purpose, of giving symptoms, of *full grown* diseases, their results, and establishing indications of cure, can ever afterwards apply to any beneficial extent, the facts, and views, so recorded, to illustrate a thing so totally different, as is the investigation of "*diseases which precede structural derangement*." This opinion, if correct, applies with equal force to the continual references of our author to preceding publications of his own, these were written for the purpose of delineating *full grown diseases*; they do not, therefore, apply to a *condition* which has a more latent existence. The naturalist may skillfully describe the plumage, the form, action, and habits, of the most beautiful bird, but let him attempt to apply this knowledge to the same bird in ovo, and, while as yet its form is not completed, and what idea can he give of the state or condition of the bird, which is acquiring form, in its enclosure? We believe that this comparison is sufficiently just, and consequently that whatever be the extent of medical knowledge which a physician may possess, he is not prepared to write on incipient diseases, or to improve the "*new ground*" on which, as professor Miller has well remarked, doctor Philip has "*laid his location warrant*"—a ground "*nearly unoccupied*," without directing his inquiries upon new ground.

We do not intend to enter into a general analysis of the work before us, we shall rest our more general observations here for the present, and repeat what we have already said, that we believe that the fact of our authors having awakened attention to this hitherto much neglected branch of medical knowledge, will serve to give imperishable fame to his name. The study of diseases which precede natural derangement is in its nature highly important, when opposed to its opposite extreme, of examining cases, and studying diseases, by the ravages which they leave behind, as we see in the works of those who form their theories upon the knowledge which they derive from their dissections, or from morbid anatomy.

We shall here take leave of the review, by stating as our opinion that notwithstanding that doctor Philip stands in some degree corrected by the Hercules of Journals, we nevertheless believe, that the review though it may not be dipped in gall, is in some degree, intolerant; and, that the writer of it has run into hypercriticism on the work before us.

We have not room to do justice to the subject, we shall therefore not attempt an analysis of the general principles presented by doctor Philip—it may suffice briefly to say, that this author ascribes much importance, and no doubt justly, to the liability under which the human body lies to run into plethora. A knowledge of this important fact, and a careful application of it in the regulation of our regimen, and all the ordinary cir-

umstances connected with our modes of living, is highly important. We are aware that, there is nothing new in the opinion that our bodies are liable to plethora, and that plethora may lead to disease, but our author has presented the subject in a dress sufficiently new, to call our especial attention; and every reader should possess the work did it not present another claim to merit. It is well worthy perusal by every medical reader, nay it will fill an absolute void in every library.

We are however principally solicitous to call the attention of the profession to the manner of treating diseases, by our author, while they are yet, as it were, in the nursery. Among the more important we notice that of disease of the lungs. Disease of this organ, we need not say, is in an especial manner worthy of notice, both on account of its insidiousness, and its fatality. We shall therefore proceed to examine some of the observations of our author, as well in relation to the symptoms as to the means of cure.

"Of all the vital organs, (says doctor Philip) the lungs are most liable to change of structure. It has been supposed that in the lungs, as in the heart, this change will arrive at a stage which defies our means, before it produces any symptoms by which its presence may be detected. Tubercles, it has been supposed, may thus be formed."

To prove that the lungs are very liable to structural derangement we need only turn to the list of diseases of this organ, noticed by doctor Bailly, in his morbid anatomy, these are first abscesses, tubercles, soft pulpy tubercles, water accumulated in the substance of the lungs, air cells of the lungs enlarged, air vessels attached to the edge of the lungs, lungs changed into a substance like liver, lungs converted into bone, earthy concretions in the lung, hydatids, &c. Of these, tubercles are much the most common, and the hepatized condition next in the order of frequency.

"If this ever happen (says doctor Philip having allusion to the formation of tubercles without any symptoms indicating their presence,) which I greatly doubt, it must be very rarely; because I have found that, in the most consumptive habits, the first symptoms can generally be checked, and perfect health re-established." It has been objected to this, that, tubercles have been found in the fetal lungs; but we may admit the rare and possible fact, and it does not in any essential manner lessen the value of the opinion, expressed by doctor Philip. We believe with him, that nothing is more true or important than the fact that, first symptoms are generally curable, and that a great proportion of those who fall victims to consumption might have been saved, by early and particular attention to incipient symptoms.

"Nor can I subscribe to the opinion, that the predisposed are born with the seeds of tubercles in the lungs, and that no other can become victims of this disease." This opinion has been called in question, because instances have been seen of tubercles in the lungs of the child in utero. The bare possibility does not much impair the importance of the opinion of our author, since the celebrated doctor Bailly, in his morbid anatomy, does not lead us to believe, that such cases are often to be met with, not having mentioned any cases.

On the contrary, he tells us, page 72, that "tubercles are sometimes found in the lungs of children at a very early age, viz, two or three years old; but they most frequently occur a short time before the completion of growth." Indeed, the fact that children escape comparatively, so often from consumption, notwithstanding they are so often affected with severe catarrhal diseases, is of itself a sufficient proof, that tubercles are not common in infancy; the fact, that children are not wholly exempt from tubercles, does not militate materially against the opinion, that morbid phenomena precede generally structural diseases of the lungs, sufficiently cognizable to the inquirer who is prepared by suitable education to detect the almost latent spark.

For ourselves, we fully concur in the following opinion of our author. "It may be induced in those who apparently are least disposed to pulmonary diseases, by the frequent repetition of powerful causes; and in such cases, its consequences in the lungs are precisely of the same nature; the lungs after death presenting, in all respects, the same appearances as in those in whom the predisposition is strongest."

"We may, therefore, very confidentially assume, and at all events they are the safest assumptions, that disease of the lungs never exists without betraying itself by evident disorder of their function, and that, at the commencement of the symptoms, the lungs contain neither tubercles nor their seeds." Can any experienced physician, be insensible to the truth and importance of this opinion here expressed, and, yet, it is a lamentable fact, that, few indeed have been influenced by it in their intercourse with patients. Most writers have been totally insensible to this highly important truth, in consequence of their having, as has been remarked by doctor Philip, "adopted the opposite assumptions (which) are so gratuitous, that, as far as I know, not even an attempt has been made to adduce a direct proof of either. Tubercles, I believe, are always the consequence of some occasional cause, and, in the first threatening of the disease, may generally be prevented, however strong the disposition may be, by correcting the symptoms which precede them." This is plain



matter of fact occurring under the experienced eye of doctor Philip, a man whose talents for deep research, and philosophic inductions stands pre-eminent. We would not exchange the information contained in this paragraph, for *all* that has been written on the structural derangement of vital organs, for the purpose of explaining their diseases, with a view to their cure—that such predisposition to consumption might be controlled and that promonitory symptoms might be removed was well known to doctor Rush.

We have long been of the opinion, notwithstanding the fact, that consumption is most generally preceded by tubercles, that a great deal of mischief has been done in the treatment of consumptive patients, by viewing them as necessarily connected with tubercles in the lungs. As has been said by doctor Philip, tubercles will not form without some premonition, and there is much reason for believing that tubercles, except perhaps in some cases, do not form very rapidly, and we can see no reason why this kind of diseased action may not be controlled in its incipient state, since we know this to happen frequently with most of the other-viscera. Let us hear what doctor Baily says, speaking of tubercles, he tells us that “they are at first very small, being not larger than the heads of very small pins, and in this case, are frequently accumulated in small clusters. The smaller tubercles of a cluster probably grow together, and form one larger tubercle. The most ordinary size of tubercles is about that of a garden pea, but they are subject in this respect to much variety. They adhere pretty closely to the substance of the lungs, have no *peculiar covering or capsule, and have little or no vascularity.*” It would be turning out of the ordinary course of nature, to believe that tubercles, which we see forming thus gradually, must necessarily run their course; other indurations either remain stationary, or disappear sometimes under proper treatment.

Doctor Philip having assured us of the fact, that even where there is a strong predisposition to the tubercular condition, it may very generally be restrained, and that in milder cases this may almost always be expected; now calls our attention to the signs or symptoms by which the first approaches of this disease may be known, or at least should always be suspected. “These are a cough, which, in the first instance, rather deserves the name of a tendency to cough, sometimes both very slight and unfrequent; and a less free state of the breathing under strong exercise, than is consistent with a perfectly healthy state of the lungs; for the very first beginnings are not to be disregarded.”

“It unfortunately happens, however, that they are so slight as often to escape attention; and, when they are observed, are al-

most always regarded as too trivial for serious treatment, and yet in those who are most predisposed to disease of the lungs; slight as they are, it is often only by a great deal of care that their progress can be arrested."

"The patient is accustomed to see hundreds affected in the same way, who get well without trouble, and he sees no reason, why he should not do the same; nay, he has probably, again and again, experienced the same thing in himself; but he is not aware, that every time the symptoms recur, such is the power of habit, they become more obstinate, and the lungs less liable to resist them; and he is at length, surprised to find that his cough does not go off as well as usual."

"When a person in whom the predisposition to pulmonary disease exists, makes this observation, his state is already doubtful; his cough will prove more or less tedious, and it is impossible to say, whether the structure of his lungs will bear its continuance. For the strongly predisposed, there is no safety but in watching the very first approach of the disease, and regarding even the slight symptoms just mentioned, as a serious ailment. If the habit of frequent cough is formed, there is but one step between them and immediate danger."

"It is in this way that the young so frequently fall a sacrifice to pulmonary consumption, where there is no peculiar weakness of the vital organs but in the lungs. But the lungs, like other organs, also suffer by sympathy with other parts; which will not surprise the reader, when he reflects on the facts which have been laid before him."

"We still find the digestive organs, those whose affections are most apt to produce sympathetic disease; but while the heart sympathises most with the stomach, it is with the liver that the sympathy of the lungs is the strongest. Hence it is, that the affections of the stomach only tend to produce disorder in this organ. But such is the propensity, when disorder of the liver has taken place—that it is in what are called bilious complaints, that I believe, we shall not err in saying, that they lay the foundation of more than half the cases of pulmonary consumption in this country."

What experienced physician has not seen the verification of all the circumstances pointed out in the foregoing quotation. And we would ask, who has admonished us in a manner so pointed, clear, and satisfactory as the author before us? It is true, doctor Rush has put us on our guard, in relation to the facts here noticed; and, that that author held the same opinion with doctor Philip, that too much importance was generally ascribed to tubercles. We also find this author agreeing in the fact, that consumption, very often arises from a diseased condition of

some other organ—because the lungs, like other organs, also suffer by sympathy with other parts. Our own experience has led us to believe, that consumption frequently is a consequence of disease of the liver and stomach.

"When the patient escapes such sudden attacks, his disorder, however slow its progress, never remains altogether stationary. In the course of years, and generally sooner, if the causes which produced it continue to be applied, the necessity for the morning clearing of the lungs becomes more urgent, although, when the change is very gradual, the patient is seldom sensible of it. It begins to be attended with what he calls a huskiness, and at length, a little to affect the breathing till the chest is thoroughly cleared, which is done with rather more difficulty than it used to be." That this is a common course of progress of the incipient or premonitory symptoms of consumption of the lungs, we have no doubt, nay we have witnessed their progress. But these cases must be considered but one variety of the grouping of symptoms. In very many cases in young persons, no such protracted phenomena are to be seen. A severe cold, an acute pneumonia may by neglect, maltreatment or a very strong predisposition lead to phthisis unless speedily arrested.

These latter cases, however, do not come under the head of diseases, which precede structural derangement in the sense of our author; but, there is structural derangement in these rapid cases, as we see in abscesses, vomitæ, &c.

Our author continues—"what is expectorated, if it has had the blackish hue, loses it. It begins to appear less clear, and at length, streaks of a yellowish color may be distinguished in it. If the disease is not checked, the proportion of this opaque yellowish part increases, till it forms the principal part of what is expectorated." Our author, like most writers upon medicine, is too precise in his symptomatology—few cases will present the morbid phenomena in the order, or with the regularity, here detailed. On the contrary, we have remarked on this point, that the matter expectorated, is liable to considerable variation, changing occasionally from the more opaque to the mucus, and vice versa; and so of the blackish sputa; this condition, like the others, may come and go, as the patient shall be influenced by surrounding circumstances.

Our limits do not admit of a more general examination of the symptoms which have been noticed by doctor Philip, as tending to structural derangement of the lungs—we shall proceed very briefly to notice some of the causes. Our author, continuing his symptoms, says, that "however slight, is a case of complicated disease; and from sympathy, established between all parts of

the body through the nervous system, the affection of each tends to increase both the symptoms and obstinacy of the other; and it adds not a little to the evil that, from the nature of such cases, the organs affected, must necessarily be those which greatly sympathise with each other. The effect of every cold, cause of fatigue, &c. fall chiefly on the debilitated parts, and thus, also, the evil accumulates."

This paragraph is well calculated to awaken our attention to the greatest vigilance, in guarding against irregularities of every kind, whether of diet, drink, exercise, sleep, &c. and to the necessity of meeting changes of season, and of days, and even hours, by suitable clothing, remembering always what doctor Rush has so justly said, that it is safer to exceed in warmth of clothing than to incur any risk of its opposite.

Among the remote causes, doctor Philip has mentioned "the excessive use of wine, ale, &c. because these produce a plethoric state of the habit, it becomes full and bloated, and consequently, liable to diseases which arise from overloaded vessels: while spirit drinkers are pale and emaciated, and subject to the diseases, which arise from more direct injury to the nervous system; they become feeble, unsteady and paralytic."

We are fully sensible of the truth of the above remarks—while we deplore the common practice of too thin dressing, tight lacing and want of exercise among females, we are no less accustomed to witness the deplorable ravages made on the constitution of men by the use and abuse of spirituous drinks. Within the last few years, we have witnessed the destruction of several useful mechanics, from the excessive use of ardent spirits, by which they were thrown into consumption—some of whom, we are confident, were entirely free from hereditary taint, from acquired scrofula, or any other deficiency of sound vigorous stamina; on the contrary, some of them were remarkable for their prowess of strength, and endowed with forms, manifesting all the firmness of muscle, and bone, and sinew, and nerve, which serve to give to man his manliness.

ART. 11. *Chirurgische anatomie der ligaturstellen am menschlichen körper.* VON ROBERT FRORIEP, Dr. Med. et Chir. mit 18 Tafeln Abbildungen, Weimar, &c. 1830.

*Surgical anatomy, with a view to the application of the ligature, to the human body.* By Robert Froriep M. D., and Surgeon, with 18 drawings. Weimar, 1830.

It will be recollected, by the readers of the late Philadelphia Medical Recorder, that the editor of this Journal communicated two essays, on *transverse anatomy* for that work. Since then, he has each winter, during his surgical course of lectures, attempted to illustrate this subject to his class. The late professor Wells was present at one of those lectures, and expressed his approbation of the method in strong terms. But it has so happened, that this subject which we deem more and more important, as we became more conversant with it, has been almost entirely neglected; the gentleman named did not think proper to notice the subject after he became a teacher in the university of Maryland,

During our short and extremely pleasant sojourn at Hamburg, we had the gratification of becoming acquainted with our distinguished friend professor Froriep, who, among his communications, which he was able to make in excellent English, gave the fact of his son having turned his attention to transverse anatomy; and he was so kind as to present us with a copy of the work, the title of which we have given above.

This work contains 18 tabular views, or drawings, which are principally transverse; and the body of the work is made up of the explanations of the drawings. The description is given in both the German and Latin languages. We consider the drawings, though somewhat rough, yet, very accurate; and we feel persuaded, no one wishing to acquire a knowledge of surgical anatomy can read this work without much improvement. Every one conversant with the subject knows how difficult it is to recollect the minutiae of anatomy, so as to recall, when wanted, the precise relative situation of parts. For ourselves, we are fully satisfied this difficulty would be much lessened, if surgeons would make themselves familiar with the anatomy, as well in its transverse direction, as in its longitudinal.

It is a pleasing fact that, notwithstanding the importance of this subject, it admits of ample illustration within the limits of a few lessons, this, indeed, is somewhat remarkably the case, since we find that very little can be added to the 18 tables published by doctor Froriep, this will be made manifest as we proceed to give a short exposition of the drawings.

It is not enough that an operator knows the general course of arteries, veins, nerves, &c. in situations; where he may have

occasion to apply a ligature, he will proceed with much greater ease and freedom, for knowing the precise relative situation of the several parts, as to distance, in all directions, from some fixed and conspicuous part.

We do not wish to be understood to say that anatomical knowledge may not be acquired, and that every practical point connected with surgical operations, may not be well understood without it, but we do know, that, a portion of attention to transverse anatomy will not only facilitate the acquisition of knowledge, and serve to fix it more firmly in the mind of the student; but we are well convinced that, those whose practical opportunity does not enable them to retain clear views of their surgical anatomy, will much more readily and certainly recall what they have forgotten, by examining transverse sections or views of parts, upon which they are about to operate, than by any other mode.

It may be said, that no man should attempt practical surgery who is not perfectly well acquainted with anatomy, but however correct this be in general, yet, there are occasionally seen not only difficulties, but actual mistakes, by men who are first rate anatomists. To such, and to all, who wish to proceed with confidence, we beg leave to assure them that they are neglecting an important source of acquiring information, while they omit to acquire a knowledge of relative distances, &c. of structures, which become the objects of their manipulations, by attending to transverse views.

Such being our conviction, we beg leave warmly to recommend the work of doctor Froriep; and hope to see it republished in this country. Our limits will not allow any thing like an analysis of the work, we therefore, proceed to give a sketch of its contents.

The first table, of the work of doctor Froriep, exhibits two transverse views of the neck. Fig. 1. is a division of parts, by an incision, a little obliquely across the throat, from the left to the right side, which is made so as to take the arteria innomina in its course,—all the associated structures, from the skin inwards, that are cut, are shown in their several relative situations, by figures of reference; and, this view is illustrated further, by an exposition of some of the more important parts, in their longitudinal aspect; and by a line drawn across the root of the neck, at its anterior part, so as to show the precise point at which the incision is made. We must however differ from the author in the location which he has given the *innominate*, it lies a little too much below the inner ends of the claviculæ.

Figure second in the first table, represents a section of the throat and entire neck, between the fifth and sixth cervicle ver-

tebræ. This is said to divide the carotid artery in the situation in which it should be tied. In this view, we have a clear and accurate exhibition of the ends of all the several muscles, vessels, nerves and other parts, including not only the skin, the external cellular membrane and fascia, but all the several layers or processes of membrane and fascia, which envelope the several muscles. It would be a waste of words to attempt any description of these parts without the necessary drawings; suffice it to say, that this view is highly interesting, as, indeed, are all the views in the work we have before us.

We may, here, once for all, notice the fact, that our author has connected with each table, the method of operation for applying the ligature. In the first table, we have the operation, described for tying the innominata, and the common carotid; and so throughout the work, each section of parts is followed by a plan of procedure for tying the greater arteries of the several parts.

Having proceeded thus far in our remarks, we shall present a tabular view of the different views of the work—this is all we deem advisable, since we can expect to do little more than awaken attention to this subject, without representing the parts divided in situ.

Table second, represents the anatomy concerned in the operation for tying the common carotid, the superior thyroid, and the lingual arteries. This table is represented on a folio sheet, demy size, and affords a very good view of the cervical anatomy so far as interested in those operations.

The first table represents a section of the neck between the fourth and fifth cervical vertebræ, in figure first; and between the second and third vertebræ, we have another view in figure second.

We have been led to differ from doctor Froriep as regards the bones, as fixed marks or points, to be designated on the throat; and, indeed, in our publications alluded to in the commencement of this article, we fixed upon the different points of the trachea, as best calculated to locate particular points, of important parts—thus we have the cricoid cartilage, the crico-thyroid membrane, os hyoides, &c. as fixed points, always easily cognizable; while, in persons of short fat necks, we cannot easily distinguish the vertebræ.

Table fourth exhibits, in figure 1st, a most interesting transverse view of the anatomy, concerned in tying the subclavian above the clavicle; and, fig. second represents the parts involved in the operation, for tying the subclavian below the clavicle. In these views, the incisions are carried no deeper than is necessary for showing the parts concerned.

Table fifth represents the anatomy in the longitudinal direction which is concerned in tying the arteria innominata, and the arteria subclaviæ above, and below, the clavicle.

Table sixth represents, in fig. 1. a section of the axilla, and forepart of the shoulder, left side, where the axillary artery is to be tied. In fig. 2. we have a section of the arm, about the middle; and in fig. 3. a section at the cubit. 4th represents, by lines, the several points at which those transverse divisions, or sections are to be made.

Table seventh represents the parts acted on in table sixth, in their longitudinal aspect.

Table eighth represents sections of the forearm at its upper third—at its middle; and, at the root of the thumb.

The ninth table exhibits the parts of the forearm longitudinally.

In table tenth, we have fig. 1. a view of the transverse anatomy at the point, at which the incision will take the acetabulum in its course—carried as deep as we are to expect any important parts. Fig. 2. exhibits an entire division at the trochanter major.

Table eleventh represents a section at the middle of the second fourth of the thigh. Fig. 2. a division at the middle of the thigh.

In the twelfth table we have a view of the parts of the thigh in their longitudinal aspect.

In the thirteenth table we have a view of a section of the leg at its lower third; and another through the centre of the knee joint.

Table fourteen represents the natural longitudinal relations of the anatomy of the leg.

Table fifteen exhibits a section at the middle of the upper fourth of the leg, at the middle, and the third; and also, at the middle of the lower third of the leg.

In Table sixteen, we have exhibited the longitudinal anatomy of the leg.

Table seventeen represents three sections at the ankle, running from the instep to the upper part of the heel; from the same anterior point or nearly, to the lower part of the heel; and, the third from the instep to the bottom of the foot, about one-third way from the heel to the toes.

Table eighteen gives the longitudinal anatomy of the leg and foot. We may remark here, that, in all the longitudinal views, the principal aim has been to show the *vessels in situ*.

Our patronage is too limited to admit of our procuring drawings, or we should have been pleased to have exhibited the views. A little reflection will convince the reader that, these few sections will serve to illustrate the anatomy throughout,



where surgery has relation to blood-vessels; and that to know, by an inspection of the cut ends, of the several structures, as they are situated, by these transverse sections, must be instructive—we have a pretty clear illustration of this, in the transverse view which Mr. Charles Bell has given, of the penis when treating of its amputation, in his operative surgery.

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ART. III. *Acta Regiæ Societatis Medicæ Hafniensis Vol. 7—Havnia, MDCCCXXIX.* Presented "to Professor Jameson, by Doctor Otto, the secretary of the society."

The above volume, handed to the editor of this journal, by his excellent and very kind friend, Professor Withusen, bears full evidence of the zeal, industry, and ability, with which the proceedings of the Royal Medical Society of Copenhagen are conducted. It is a fact too notorious, that, in many instances, medical societies are but a kind of nominal institution—a body without a soul: not so at Copenhagen. We observe, upon turning to the table of contents, no less than nineteen articles, the collection of one year, all on medical subjects.

Our limits do not allow of our inserting any of the several interesting papers, to be seen in the book before us, except the following short account of a *lusus naturæ*. We shall hereafter translate a portion from these transactions, for our future numbers. Among the singularities, we have noticed the case reported by F. G. Horwitz, of *hydrops ovarii*. The present writer was shown the enormous cyst, formed of the ovarium, by his friend Professor Withusen, in the cabinet of the king's hospital, at Copenhagen. This sack was blown up, and had the shape, as well as we recollect, of a flattened spheroid—about equal in capacity, to a bushel measure.

The following case has been reported by doctor W. F. Mansa:

Among the more remarkable cases of pathology, that are worthy of remembrance, I have thought that the following, which I am about to describe in a brief manner, ought to be enumerated; not only on account of the rarity of this description of *lusus naturæ*, but also on account of the difficulties and perplexities which such a tumor, when it presents itself foremost, would cause to one unskilled in irregular parturition.

On the twentieth day of December, of the past year, a mother, the wife of a butcher, residing in the western suburbio Hafniæ, having twice before given birth to children in easy parturition, was delivered, without difficulty, of a mature and living child. The parents, alarmed at the sight of a large tumor, hanging from the mouth of the infant, sent for me. A novel sight presented

itself on my entering the room; for the tumor, which was the size of a man's fist, and of a dark brown color, hung down to the middle of the breast. Having a small neck, of the size of a man's little finger, it seemed to arise from the hard palate, in which place it was bound down by fimbriæ, or threads. When taken hold of, it could not be extended; by which manipulation the soft palate was somewhat moved. The inferior extremity of the tumor was the wider by far. On the left side of the body, there was a singular tumor, resembling, wonderfully, a kidney in shape. The substance of the whole tumor was found to be covered with a thin membrane; no doubt a continuation of the pituitous membrane; fleshy, and, in some measure, hard and elastic, notwithstanding all the parts of the cavity of the mouth were properly situated. The lips could be closed smoothly, and the infant sucked constantly the neck of the polypus.

I applied a strong ligature, and ordered the infant to be nourished with sweetened water, and a decoction of barley; as it could by no means suck the breast of its mother. On the third morning, I cut off the tumor with a knife, as high up as possible, as it had become darker in color, and began to smell. No hemorrhage followed. But now it appeared that the polypus arose from the posterior nostrils, and had penetrated through the split palate, and that those fimbriæ, which we mentioned before, were formed by the palate. The appendicula of the uvula adhered, but the neck of the tumor touched the palate, though without any adhesion whatever. The isthmus of the palate was perfect. The removed tumor weighed twelve common ounces. On the fourth day, the infant could suck the breast of its mother, and appeared to be doing well; but on the seventh day aphthæ made their appearance; and on the eighth, it died in spasms.

It also appears to me worthy of remembrance, that the mother, when about four months gone in pregnancy, was very much agitated at the sight of the kidney of a deformed cow; and, perhaps, from that, the child received the deforming excrescence.

But there is nothing new under the sun. The very celebrated Otto, in his work—*Neue Seltene Beobachtungen zur Anatomie, Physiologie und Pathologie gehoerig*, makes mention of a similar case; namely, of an embryo of six months, very much deformed, with a large tumor hanging from the mouth. Its size equalled that of the infant's head, and had grown with a wide neck, joined to the superior part of the fauces, behind the palatine arch. The cavity of the mouth was very much deformed, and the velum palati pressed forward, and had grown partly to the tumor. The uvula was wanting.

**ART. IV.** *Zeitschrift für die Ophthalmologie, in verbindung mit vielen Aerzten, herausgegeben, von DR. FRIEDRICH AUGUST VON AMMON, &c. &c. Ersten Bandes Erstes Heft; mit 2 lithographischen tafeln.—Dresden, 1839.*

The above named work, a periodical devoted to disease of the eyes, and whatever relates to this truly important organ, was put into the hands of the editor, by his amiable friend doctor Schön, of Hamburg, at the request of the author. We cannot find place, at present, for more than a very limited portion of this interesting work; but we hope to enrich our pages, from time to time, from this able cotemporary.

We have thought proper to give place to the following observations by the editor. Professor Schlemm, of Berlin, has discovered in his recent accurate examinations of the eye, the nerves of the cornea; the existence of which has long since been conjectured, but never exhibited or described. Their origin is from the ciliary nerves. They pass off behind the ciliary ligament, in superficial and deeper-seated twigs. The latter are larger and more numerous than the former, and go to the iris: the superficial, on the contrary, lying close upon the sclerotic, run over the ciliary ligament, on the fore part, and sink down into the channel or groove on the edge of the cornea, in such a manner, that along the curve they continue into the cornea, behind the circuit of the concealed edges of the sclerotic coat, until they are lost, to the eye, by reason of their smallness. Whether the finest twigs penetrate through the coats of the cornea to the outside, Professor Schlemm is not yet altogether certain. The above mentioned continuance of the nerves of the cornea, Professor Schlemm has observed in many bullocks' eyes, and in stags' eyes. In the human eye Professor Schlemm can show their existence, so that one may always perceive, by a careful loosening of the ciliary ligament from its channell, viewed with a good lens, which circumstance first prompted him to an accurate examination of the eyes of the larger inferior animals, (S. den IV. Bd. des encyclopädischen wörterbuch der medicin. Wissenschaften. Berlin 1830. S. 22. u. f.) The editor of this periodical, will return to this important subject, and communicate the result of the inquiries which he is about to make.

*Selecta with Remarks.*

## MEDICAL.

*Magazin der Ausländischen Literatur der gesammten Heilkunde, und Arbeiten des aerztlichen vereins zu Hamburg.—Herausgegeben von Dr. G. H. Gerson und Dr. Nichol, Heinr. Julius.—September, October, 1830.*

The above named journal, received in exchange for this journal, and put into our hands, by our excellent friends, doctors Julius and Gerson, is a work of much merit. We hope to enrich our pages, occasionally, with articles from it. At present, our limits do not admit of any thing more than the insertion of the following summary of practical observations, made at Bergen, in Germany, for the year 1827. The various diseases noticed, are treated in so concise a manner, and exhibit so much of modern practice, that, we think, this article will be found acceptable.

*No. 1. General Report for the Town Infirmary of Bergen, in the year 1827—by Ehr. Wisbach.*

At the end of the year 1826, there remained under treatment,	28
In 1827, there were received,	359
(1827) were treated,	397
Of whom were cured,	319
Died—(25 men and 6 women,)	31
At the end of the year, there remained under treatment,	47

2. *Fever.*—Gastric fever was the most prevalent disease. Although all showed symptoms more or less of crudities in the primæ viæ, yet emetics were but seldom employed. Whenever the patients complained of oppression, and pain in the præcordial region, which was increased by external pressure, almost always the case, leeches were applied to the sensible part, and always with benefit. Afterwards there was administered inwardly; sometimes saltz-julap, with or without nitrate of potash, sometimes a solution of murias ammoniæ; sometimes brausepulver, and, when circumstances required it, the common eccroptics.

By this simple treatment, with the aid of a rigid anti-phlogistic diet, the disease was always subdued.

3. *Nervous fevers* were mostly fatal, when opportunity was not afforded to treat them from the beginning, which was but seldom the case—leeches were applied according to circumstances, sometimes on the præcordia, sometimes on the tem-

ples, together with the internal use of salines (mittelsalzen.) Stimulating remedies were used sparingly; and they were first used in the nervous stage. Delirium and diarrhœa, were the symptoms which required the most careful attention. The former was treated with leeches, cold applications to the head, and saline laxatives; the latter was often very stubborn. Where there was pain in the belly, leeches were found very serviceable. In this event, the oxyd of iron, recommended by Pommer; (Heidelb. Klinische Annalen Bd. 2. Heft. 1,) was given in doses of from four to ten grains, never without remarkable benefit.

There is another circumstance worth mentioning, which showed itself in the cases of two girls, afflicted with febris nervosa versatilis. Without any striking change in their disease, they were suddenly taken with a copious discharge of blood from the rectum. One died; the other, Hr. W. saved by the use of alum whey, glisters of a decoction of tormentil, and cold applications to the belly. Did the cause of this hemorrhage lie in the widening, or paralysis of the anastomosing vessels? This, at least, appeared probable to Hr. W. particularly on account of the beneficial operation of the astringent remedies. The dissections showed, always more or less plainly, such derangement of structure, as to speak for the correctness of the antiphlogistic treatment; namely, more or less of large red spots, in the intestines, which stuck together in many places; and, not seldom, they were covered with real pus. The possibility of this derangement, without the presence of such indications as commonly point out inflammation in the abdomen, Hr. W. knew not how to explain; of those in whom he found evidence of inflammation, he knew but one case, in which there was, about twelve hours before death, evidently pain in the abdomen, attended at the same time with vomiting. This patient having been treated previously by an experienced physician, for fourteen days, came into the infirmary with the usual symptoms of nervous fever; and the indications seemed to call unequivocally for the use of stimulating remedies: but the dissection showed plainly suppuration of the intestines.

4. *Rheumatic fever* was likewise commonly treated with blood-letting, leeches, and a solution of murias ammoniæ; or nitrate of potash, or tartar emetic. If the rheumatism was more chronic, and fever became excited; camphor, spiritus mindereri, aconitum, guaiacum; and similar remedies, were employed. The painful parts were wrapped up with unwashed wool, and almost always with mitigation of the pain. A tailor, twenty years of age, of the phlegmatic temperament, who had never been sick, was seized with a rheumatic fever; which was attacked with the usual

remedies; but the local pains, and a general swelling, particularly of the hands remained unsubdued. Many internal, and external remedies, were used without benefit, until Herr W. remembered that Lentin had seen the favorable operation of sublimated mercury, in similar cases; and, when there was not the slightest probability that syphilis was concerned in the disease. He gave it in the form of pills, in doses of from a fifth, to a half grain; and, almost immediately a wonderful improvement exhibited itself, and in about four weeks the disease was entirely subdued.

5. *Catahral fever* was managed by the usual method; often, however, local pains in the breast required peculiar treatment, particularly in those who had labored under a chronic cough before the fever. With these, pills of gum ammoniacum, galbanum, extractum conii, and crude sulphur, were often used, and with good effect, in conjunction with a tea of—species pectorales, and flores arnicæ.

6. *Intermitting fever* is among the rare diseases of Bergen,—old practitioners assert, that they have seen the disease only among strangers. This experience holds good no longer; for besides five citizens of Bergen, treated in the infirmary, in the year 1837, there also occur, not unfrequently, cases in private practice. Peruvian bark cured them all after other common remedies had failed. One case, out of the hospital, treated a long time with Peruvian bark, attended with an obstinate diarrhæa was relieved of both fever, and diarrhæa, by Angustura bark in decoction.

7. *Pneumonia* is to be found here abundantly, particularly during dry cold weather. The different remedies by which it has lately been attempted to supplant bloodletting in this disease; namely, prussic acid, recommended by Brera, and Borda; and tartar emetic by Peschier, the author has not tried, as, liberal bleeding, in conjunction with an antiphlogistic regimen, will always afford so beneficial a result, that he could not believe himself justifiable in changing his practice. A patient died after two days residence in the infirmary. In the dissection of the body, it was found that the whole right lung had completely wasted away, or was converted into a membranous sack, which was filled with pus.

8. *Enteritis*. By the treatment of this disease, it appears how little we dare depend upon the pulse, in order thereby to regulate, the repetitions of bleeding, for in most of the patients the pulse was so small, that, it could scarcely be felt, and yet liberal bleeding was resorted to until the usual symptoms of resolution. Internal means were used sparingly in this disease, and were confined mostly to a poppy emulsion. When the flatulence dis-

appeared, and the violence of the pain abated, castor oil would be given. *Sectio cadaveris* afforded us either pus, or gangrene, in the intestines.

9. *Hepatitis*. Two women, who sought assistance in the infirmary were both restored by the usual treatment; while two men died, who were affected with inflammation of the liver; both were drunkards. On the dissection, tubercles of a stone-like hardness, and abscesses were found in their livers.

10. *Erysipelas*. How necessary and important it is to make proper incisions in pseudo erysipelas, Herr Wisbach has experienced in the infirmary. He was once forced, in a case of that kind; to make an incision from the internal side of the head of the tibia down to the malleolus intenus, by which a large quantity of ichorous matter was discharged; camphor wine was applied to the wound, and the whole limb enveloped in a covering of pounded aromatic herbs. By this treatment; and by a judicious position of the limb, the patient was cured in a short time. Had the incision in this case been delayed, until external fluctuation was perceptible, amputation would probably have been unavoidable.

11. *Burns*. Almost the whole surface of the body was burnt in a man, who had fallen into a kettle of boiling potatoes, during an epileptic fit. The case continued a long time, until the wounds, particularly of the face healed, because they were broken open again during the fits.

12. *Gout*. This disease shows itself sometimes wandering over the whole body, again it is confined to a single part; and seizes upon, in preference, the hip and knee. Most of the sufferers are brandy drinkers. *Oleum jecoris ascelli* (oil of cod liver) was administered, but not with the same benefit, which others have derived from it. In one instance only, it gave decided relief, in a case of sciatica, against which many remedies had been previously tried in vain. On the contrary, the author derived great benefit from the *tinctura colchici*, in doses of twenty drops, four times a day. (The preparation will be found in *Rust. magazin Bd. 22.*)

13. *Apoplexy*. Where apoplexia sanguinea was clearly indicated, bloodletting, leeches, cold applications to the head, and saline cathartics, were employed in time. One patient left the infirmary with a paralysis of the muscles of the face, by which the mouth was drawn awry. A case of enuresis which resisted many remedies, ended in death by apoplexy. The dissection showed that the patient was affected at the same time with tuberculous Phthisis.

14. *Vertigo*. This disease shows itself particularly in drunkards, with those stimulating, and sometimes depleting measures,

in conjunction with a regular diet, were of benefit. Vomiting was a common symptom, where there was disorganization of one or more of the abdominal viscera, and, therefore, the treatment was of no service. In one case, where disorganization of the liver was suspected, the following pill was given, in conjunction with a blister.

R Extr. conii macul.  
 ———— Chelidonii  
 Sapon. medic.  
 Fell. tauri. inspiss.  
 Pulv. Rad. Rhei aa ʒij  
 M. f. pil. pond gr. iij.

    Ten pills three times a day

After many weeks use of these, the vomiting ceased, which had lasted some months. In the dissection we found gangrene of the stomach, and a steatomatous tumor in the ovarium.

15. *Phthisis*. Of twelve patients, six were cured; of these, the disease generally had not passed the first stage; (according to Engelhart phthisical phlegmasia.) They were almost all treated by bleeding, and sometime leeches; and afterwards with vesicatories, sometimes on the breast, and sometimes on the arms. The internal means were the muriate or acetate of ammoniæ, in a mucilaginous vehicle was not to be procured. With this treatment, a milk regimen was sometimes conjoined. In chronic, and suppurative Phthisis, the mixtura Griffithiana was found useful.

16. *Diarrhæa*. Against chronic diarrhæa, when the case was ascertained, different remedies were exhibited accordingly. When all failed, recourse was had to augustura bark, in decoction, together with glysters of oatmeal gruel, with the yolk of eggs, and many times with remarkable benefit, nux vomica was used likewise with much advantage. Where disorganization had commenced, a cure seldom occurred. Dissection showed either indurated liver, or scirrhus in the caput coli, or stone-like concretions in the mesentery.

17. *Dolor Faciei*. A patient, who had suffered a long time with this malady, was treated with carbonate of iron. After the dose had been increased to a scruple, the pain disappeared gradually, and finally ceased altogether. In addition to this, a blister was applied to the back of the neck, which was kept open a long time, by means of savine ointment.

18. *Cardialgia*. Against this affection the magisterium bismuthi, (white oxyde of bismuth,) was found particularly useful, when increased to doses of twelve grains. Commonly considerable salivation was produced; on which event, the dose was



diminished, in the same proportions as it had been increased. Externally the tincture of opium was used.

19. *Dropsy.* The frequency of disease, particularly among the lower classes, arises chiefly from the excessive use of brandy. This is known to cause derangements of the liver, which are followed by dropsy. By the use of the common anti-dropsical remedies, in conjunction with cathartics, eight patients were cured. *Poma colocynthis* acted sometimes admirably well. In three persons, who died, there was found decided disorganization of the liver, the stomach, and the spleen.

20. *Scrofulosis.* This disease showed itself sometimes in sores of the head, sometimes in glandular swellings in the neck, and in the *pits*, (*weichen—axilla &c.*) and sometimes in ulcers in other parts of the body. When the disease had reached its height, it was treated with the common anti-scrofulous remedies, with baths, and a suitable regimen—with two men, one forty, the other twenty-three years of age, these means afforded no benefit. The glandular swellings which appeared between the mastoid process of the temporal bone, and the angle of the lower jaw, spread themselves down to the clavicle; and, in one instance encircled the neck, in the manner of a necklace, remained wholly unaltered by the use of these means. After a long and continued employment of iodine, a diminution of the swellings was perceptible. Both patients left the infirmary before it was known, to a certainty, whether this remedy had entirely removed the tumors. The iodine was given in the form of the *kali hydriodicum* (*hydriodas potassæ*;) twenty-four grains were dissolved in half an ounce of water; and five drops of the solution were given morning and evening. The dose was increased, by adding two drops daily, until it reached eighteen drops, by which time it was found necessary to stop, because the patients began to feel a sinking faintness. The tumors were likewise rubbed, morning and evening, with an ointment, composed of a half ounce of *Kali hydriodicum*, and an ounce and a half of *axungia porci*.

21. *Paralysis.* After the subsidence of an attack of fever with diarrhæa and vomiting, a man thirty-five years of age was attacked with a paralysis of his hands and feet, he was unable to stand, and still less to walk. Flowers of *arnica*, oil of turpentine, and other remedies, were tried without advantage. Finally, recourse was had to an extract of *nux vomica* with *valerian*; and by the long employment of this remedy, the patient recovered the use of both hands and feet.

22. *Icterus.* Notwithstanding the easy recognizance of this disease, yet, a rational treatment is very difficult, on account of the manifold causes which give rise to it, and the discovery of

which the most sharp sighted physicians often find impossible. Where chronic inflammation was suspected to exist, the disease was attacked with leeches, mercury internally and externally; and afterwards a blister to the right hypochondrium. Since Hr. W. Wedekind's treatment has become known, (to be found in Rust's Magazine, Bd. 18, 16, 24.) he has always been very fortunate in the management of this malady. He considers a want of secretion of bile to be the chief cause, and attributes to aloes the same operation which mercury has on the saliva, or cantharides upon the urine. Aloes produce a diarrhea, not because it irritates the bowels, but the liver, and promotes the secretion of bile, by which the peristaltic motion of the intestines is increased. Herr. W. has used the remedy both internally, in doses of five grains three times a day, and externally by a pill which was made of four grains of the extract of aloes, and as much pulverized aloes, placed upon the right hypochondrium, after the spot had been rendered sore by a blister. By this plan, he was enabled in a short time, uniformly to cure the jaundice.

23. *Menostasia*. Where it happens that a decided disease was discovered, which caused by depressed menstruation, this was treated with suitable remedies. Where this was not the case, it was necessary to have recourse to emmenagogues, among which savine in the following form was very useful.

R. Herb. Sabin.  $\mathfrak{z}\text{i}$ .

Infunde aq. ebull. q. s. a. colatur  $\mathfrak{z}\text{viii}$ .

Adde. Borac. Venet.  $\mathfrak{z}\text{j}$ .

Sacch. alba  $\mathfrak{z}\text{ss}$ .

M. F. a spoonful four times a day.

24. *Delirium tremens*. The principal remedy in this disease was opium, yet in the first stage, a vomit was generally given, which sometimes prevented a further developement of the disease. In the second stage, opium with ipecacuanha was given; of this, one or two grains once or twice a-day, in conjunction with cold applications to the head, if there was much congestion. In the third stage, opium in rapidly increasing doses, until the critical sleep occurred: at which time, a dose of six grains was necessary.

25. *Gonorrhœa*. After the employment of cubebs, in the before mentioned doses, Hr. Wisback has seen, many times, a scarlet eruption spread over the whole body, similar to that caused by the use of balsam of Peru given in large doses, (sixty drops, three times a day) and again, has he seen this consequence of suppressed gonorrhœa.

26. *Ganglion*  
*chamomilla*

ons of the *inferum florum*  
ployed, in which was an

monia in solution, together with a nourishing diet, and if the strength appeared sinking, quinine was administered internally. So soon as the dead parts had separated, the wounds were treated in the usual manner.

27. *Flour Albus.* Public women afforded the only cases of this disease in the infirmary, and its cause was to all appearance local debility, injections of a decoction of oak bark, were the only means employed and always with success.

28. *Absces.* A woman, who had an abscess in the frontal sinus was perfectly relieved, so soon as the contents had found a passage through the nose. The discharge of the pus was promoted by emollient vapors, which were conveyed into the nose by means of a tube.

29. *Amaurosis.* In the case of a boy, where there was reason to believe that worms were the cause of the disease, many vermifuge remedies were used, and after a large number of worms had been discharged, the sight was in a manner restored.

In another case, *Cantharides* applied externally, and *pulsatilla* internally, seemed to have a good effect, in the following formula.

By Hydrar. muriat. corros. gr. x.

Solve in aq. distill q. s.

Adde extract. herb. *pulsatilla*.

Pulv. herb. *pulsat.* aa ʒj.

M. F. Pill. No. XX. one pill morning and evening.

30. *Ulcers.* Old ulcers on the legs are very common among the lower classes. The treatment recommended by Rust (in his *Magazin*, Bd. 9.) was employed with advantage. The treatment begins with washings of the ulcers and general bathing; the sores are covered merely with linen rags, which are moistened with cold water. The patient is allowed daily the fourth part of the ordinary food, and twice a week, a cathartic of jalap and calomel is given, and on the following day a lukewarm bath. Warm poultices of meal, and an easy position of the limb were likewise of much service.

31. *Fistula Stercorea.* After a scrotal hernia, perhaps incarcerated, a fistula was formed, the lower opening of which was in the scrotum, the upper below the navel. From the lower opening there was a discharge of thin pus, which was mixed with feces and sometimes with air. It was cured by means of a cord made of hair, in four months. So soon as it was perceived that excrement passed no longer through the openings, the cord was gradually diminished in size, and finally it was altogether withdrawn.

32. *Fractures.* Fracture of the patella happened in two instances. With the aid of a bandage the treatment was successful, though there remained more or less of stiffness in the knee.

There was also a comminuted fracture of the ankle joint, with injury of the soft parts. Recourse was had to amputation which was clearly indicated, although the constitution of the patient promised no favorable result. Three days afterwards, trismus and tetanus appeared, and death followed on the sixth day after the operation. A man sixty-five years of age, who had broken the neck of the femur, and who was at the same time laboring under suppurated phthisis, died four weeks after his reception in the infirmary.

33. *Cataract.* A woman sixty-one years of age, had cataract in both eyes. She had been blind nearly five years. Depression was resorted to after the manner of Himly, but notwithstanding the very great care with which the operation was performed, as well as the attention to the treatment, but one eye was restored. The cause of it was an inconsiderateness of the patient, who throughout, could not be prevailed upon to make use of cold applications, necessary after such an operation, merely through fear of cold. An hypopion arose on one eye, which spread over the whole cornea. Notwithstanding which, the woman saw so well with the other eye, that she was not only able to walk about the town, but even to read, and to perform her usual work.

34. *Blepharophthalmia glandulosa.* This was of a scrofulous nature, and was caused by a suppressed eruption on the head. Therefore Autenrieth's ointment was rubbed constantly, either into the neck, or into the scalp itself. Internally the common anti-scrofulous remedies were exhibited; externally an ointment composed of red precipitate and opium was applied, and the fine (so called) false eyelashes pulled out. By this treatment, the often obstinate, disease was cured.

35. *Cancer.* A woman, forty-eight years of age, who still menstruated, had for three years a hard and painful tumor in the left breast. This had recently broken out into an open sore, and at the same time a painful tumor appeared in the axilla. The whole breast was amputated, and the tumor in the axilla removed, although it lay very deep. The woman bore the operation with remarkable firmness, and left the infirmary in a month perfectly cured.

36. *Arthrocace.* On three persons suffering with coxalgia, the actual cautery was employed, and all the three were able to walk immediately after the operation, while formerly they could only move themselves by the aid of crutches. The cautery was of little use in gonarthrocace, (gout in the knee); and still less in podarthrocace (gout in the foot.)

37. *Scirrhus Testiculi.* Castration was performed, after Lawrence and Cooper's method, in which the part of the scrotum

covering the testicle was taken away with it. The wound was united by means of suture, and healed in a short time, if not immediately by the first intention.

38. *Hydrocele.* A puncture was made into the scrotum of a boy four years old, and after the water had been drawn off, weak port wine was injected through a canula. Adhesive inflammation followed. The radical operation was performed on a man sixty-three years of age. Both patients left the hospital perfectly cured.

39. *Syphilis.* The greater number of cases of this disease came from the country, and most of them came in with secondary syphilis, which sometimes showed itself by suppurating sores in the neck, sometimes by ulcers in other parts of the body, sometimes by nodes. In many, the palate and nasal bones were affected. Hr. Wisbach had an opportunity of observing what has been asserted by Rust; namely, that syphilis seizes upon the bones, scrofula upon the cartilages. For often among syphilitic patients the root of the nose was observed to have fallen in, while the cartilages, which form the anterior nostrils were wholly uninjured: among the scrofulous, the contrary was abundantly observed.

The treatment—although we have a ready remedy in mercury, it is very uncertain whether relapse may not follow. In secondary syphilis, Dzondi's method was always employed, and generally the disease disappeared after the administration of thirty pills. It was very seldom, and only in obstinate cases, that it was necessary to increase them to forty pills, which was sure to remove every trace of the disease. In a few cases, it was necessary to stop with the remedy for awhile, in order to avoid salivation. It was seldom that unpleasant accidents appeared during the treatment; those which required attention sometimes, were vomiting, and diarrhoea, with more or less pain in the abdomen; but these were very easily removed by a few drops of laudanum. Since the introduction of this mode of treatment, there were seldom any cases of relapse; for which reason the author, so long as he was not convinced of the necessity of any other, employed it invariably, for it certainly appeared to be one of the most sure. In a primary syphilitic case, with buboes, the antiphlogistic method was adopted, and though the author must confess that he has no particular confidence in it, yet he must acknowledge that this case was cured by it. He had, however, no opportunity of learning whether the patient had been attacked with secondary syphilis, which he was very much inclined to believe.

No. 40. *Cases of neuralgia, by doctor Passagay—Gastric neuralgia converted into dental neuralgia.* Miss Araud, aged 33, enjoyed good health habitually, with the exception of attacks of toothach, by which she had lost some of her teeth. She was suddenly seized, in the middle of August, with a species of gastrodynia, severe pain in the epigastrium, flatulence, weight, eructations, nausea and vomiting of aliments, constipation. She now remembered that in August, she had been frequently afflicted with slight dyspepsia, occasioned, as she thought, by eating too much fruit. For seven months after this attack, she was unable to bear more than a few spoonfuls of food at a time, without experiencing dreadful sufferings. Two physicians whom she consulted, declared that she labored under scirrhus of the pylorus, and prescribed accordingly. During three months that she followed their advice, her sufferings became greatly aggravated. The pain, on taking the smallest quantity of food, was not confined to the stomach, but occupied the superior dental arch, where it was intolerable. In this state she went on some months more, and was now wasting away with hectic fever, vertigo, fainting, &c. so that her death appeared fast approaching. Seven physicians were called into consultation, and retired without deciding on any thing useful. The author was then left alone; and having viewed the case as one of neuralgia rather than of cancer, he entertained some hopes of recovery. He prescribed opium combined with aloetic aperients, and stimulant frictions, with anodynes to the region of the stomach. Nutritious lavements were daily thrown up, and gentle carriage exercise recommended. In one month of this plan she was restored to health.

41. *Case of chronic neuralgia of the stomach, afterwards of the ilium.* A youth sixteen years of age, came under our author's care on the 16th of December. He was pale and emaciated with long suffering. Every evening between five and seven o'clock, he was seized with an intense pain in the region of the stomach, accompanied with nausea, vomiting, and obstinate constipation. The accession lasted from six to eight hours, and was never over before midnight.

This state had continued, with little or no variation, for six years. The appetite and sleep was little affected, and the other functions undisturbed. One circumstance was remarkable. The disease ceased for about a month every spring, and then returned as bad as ever. When the boy was brought to our author, the seat of the pain had changed from the epigastrium to the right iliac region, which was tender on pressure. In all other respects, the complaint was precisely the same. The pain came

on every evening at seven o'clock. Every kind of antiphlogistic remedy, and depletion, had been unsparingly used, without the least success. In one week the malady ceded to stimulant frictions, and antispasmodics; and a combination of sulph. quinine, with sub-nitrate of bismuth, and calcined magnesia. Six years have now elapsed without any return of the disease — *Clinique—* from *Johnson's Journal*.

[The above cases are remarkable for their duration and obscurity; they serve, in corroboration with many others on record, to prove that neuralgic affections occasionally occur in every part of the body; from the tic douloureux of the pes anserina of the face, to the nervous fibrile of the little finger—from the crown of the head to the sole of the foot. Sternalgia, nephralgia, some forms of pyrosis, &c., are a few of the numerous affections of this kind. This form of disease has comparatively excited but little attention; we have for that reason thought proper to notice the cases of doctor Passagay. Believing, as we do, that these are diseases of irritation, we shall pass them over for the present, as we have that subject under consideration. Too much pains cannot be taken to distinguish some of these affections from scirrhus, cancer, &c.]—*Ed.*

40. *Case of concealed Phthisis, illustrative of sympathetic irritation.* This singular case has been reported by doctor Wm. Fahnestock, of Pennsylvania, in the American Journal of the Medical Sciences. The subject of this case was much reduced in her accouchment, in October; about Christmas, she experienced some "constriction of the chest, precordial uneasiness, and deep-seated obtuse pain, an inch or two below the clavicle." Soon afterwards "dyspnœa, dry cough, &c." came on—pain some days afterwards more acute, extending through the shoulders, to the back part of the neck; pulse 100. These symptoms did not yield to free depletion; on the contrary, the pulse rose to 120—increase of suffering generally. The pains gradually extended over the face, and settled with extreme violence upon the teeth. All remedies failing to afford relief, patient persisted, contrary to advice, on the removal of four of the molar teeth of the upper jaw. As predicted by her physician, "the removal of the teeth only served to throw the affection upon some more vital organ. The epigastric region became the seat of great "pain and oppression in a few hours, preceded by rigors and nausea."

Throughout this case the treatment seems to have been judiciously suited to symptoms present, but there were no unequivocal symptoms of phthisis till a few days before her death, when a very copious discharge of purulent matter took place. We

are, however, inclined to think, that the hectic pulse, together with the severe pneumonic symptoms, at the outset of the disease, should have led to suspicion of pulmonary inflammation. This case serves to show the importance, in one respect, of the stethoscope. But after all, what would it have availed in the above case?—It would have given some ominous indication of the fatal character of her disease, and thus have deprived the patient of the last little cordial balm of Gilead, to the mother's hope of recovery, for her children's sake! As regards the treatment of the case, there is every reason to believe, that every thing was done that the indomitable nature of the case admitted of. The translation of irritation is not only remarkable, but should make us doubly cautious, to mark the real source of disease, where it is fugitive.

#### SURGICAL.

**No. 42. Case of non-union.**—There has been much disputation among the profession, for years past, as to the utility or non-utility of permanent extension, in cases of fracture; even where they are oblique. We have long been of the opinion, that independently of the advantage of preventing the shortening of a fractured limb, by an extending apparatus, we, by this means, can keep fractured bones more completely in place, than by any other method, in all cases where there is much disposition to displacement. And, we think, our patients have often been benefitted by our practice, founded on this belief. The following case seems to support, and illustrate the opinion just expressed, in so strong a manner that, we deem it worthy of record.

Within the present year, the editor was called into consultation, with his friend doctor Whitridge. The case was that of a laboring man, somewhat intemperate; and in whom, there is much reason for believing, that the tendency to ossification was feeble. It had been found after seven weeks of careful attention, in the application of three long splints, of strong paper boards—that there was no union—one splint had been applied below, and one on each side, reaching from the knee to beyond the heel—these being well secured, the leg was laid into a box; so that one would have supposed any thing like motion between the fragments, impossible—But the fact was, that the bones were still quite loose; with an inclination of the lower fragment inwards. Having experienced the advantage from extension, which we have already mentioned, we proposed to our friend a trial of doctor Dorsey's extending apparatus. This plan was found completely successful in two weeks—indeed, in one week there was an obvious improvement—in four or five weeks, our patient was put upon crutches. We shall avail our-



selves of our next number, to offer some observations upon the subject of fracture of the leg, and of artificial joints.

No. 43. *Heilung einer completeu zerschneidung der luft-und speiseröhre, mit nachbleiben eines künstlichen respirationsweges; nebst, über die benutzung eines solchen zur heilung der phthisis laryngea; mit einer abbildung, vom professor Lüders in Kiel.*

The above pamphlet was put into the hands of the editor, by his kind friend the author, who, speaking the English language fluently, rendered himself a very agreeable companion, during the editor's stay at Hamburg. Among other pleasant hours, we shall never forget the pleasure of an evening spent at the theatre; where we were gratified, in a high degree, by the ecstasy which an interesting opera excited in the learned professor.

A more interesting case, perhaps, is not to be found upon record, than the one reported by professor Lüders—a complete division of the trachea and esophagus, terminating in recovery, with free respiration, is almost without a parallel. The author having taken some pains in collecting cases of wounds of the throat, with their results, we purpose, at some future period, translating for our pages, so much of this pamphlet as relates to the subject of wounds of the throat; mean time, we deem it important to announce the fact of a restoration, after division of the esophagus—a wound which has been almost universally considered incurable.

44. *Observations on the operation of paracentesis abdominis.*—We have seen, in the Transylvania Journal, for January, 1831, some remarks by doctor Heustis, taken from the New York Medical and Surgical Journal, on the subject of tapping. The author objects to the use of the common trocar, and proposes substituting a common thumb lancet, and the barrel of a quill. We are inclined to attach considerable importance to this subject—our patients requiring this operation to be frequently repeated, in some cases; and occasionally when they are greatly prostrated, there is a strong inducement for us to avoid as much as possible, the infliction of pain. We have had occasion to use the trocar often, and we have long been in possession of one which is so well constructed as to enter with unusual facility—It is lancet pointed, with a canula fitting on close, by a spring made out of the canula, by splitting it some distance at the end; but we are free to acknowledge, that it will by no means enter so easily as a common bleeding lancet.

On one occasion, we were disappointed by the instrument maker, by his neglecting to sharpen our trocar. In the hurry of the moment, we accepted a new one, said to be in fine order.

When we came to use it, we were extremely mortified to find that we inflicted extreme pain on the patient.

There seems to be a necessity for continuing the trocar in hydrocele; and we have greatly lessened the pain attending the operation, by having procured a trocar much smaller than those in use. It is the old fashioned three sided point, but less in diameter, than a common straw—we have often been surprised at the facility which it enters—no patient has complained of this instrument—it has the split canula—the spring, which is thus procured, secures an easy entrance to the canula.

There is nothing new to us, however, in the method of doctor Heustis; our friend doctor Cromwell, of this city, has long been in the habit of using the lancet, and a silver tube, made for the purpose. It is a straight tube, about the size of the female catheter, shut at the end, like the catheter, and the sides perforated with small holes. We should have serious objections to the quill where any thing better can be had; a common catheter will answer very well; and no practitioner ought to be without this instrument. There is not only some objection to the sharp edge of the end of the quill, which may come in contact with the viscera, whereby some mischief might be occasioned, but there is some risk of its slipping into the abdomen, in restless patients, as we know, by report, has been the case with short instruments used about the urethra of both sexes.

No. 45. "*Abdominal pressure in obstetrics.*" We have thought proper to quote the following observations from the Transylvania Journal, for Jan. 1831—it has been copied from the Boston Medical and Surgical Journal: "The custom of applying a bandage or swathe to a female after accouchment, is general; if not universal."

We for many years paid particular attention to this subject, but for several years we have ceased to give ourselves any concern about it—contenting ourselves when there is want of contraction of the uterus, with pretty firm pressure with the hand upon the region of the uterus, where there is an usual distention of the abdomen, we believe however, that a bandage properly applied is of great importance.

"It is, however, not so generally known as it ought to be, that the same application vigorously made, is a great aid to the expulsive efforts of the uterus. Pressure by the hand is almost always inefficiently applied; and much time might be saved the practitioner, and much suffering the patient, if nurses were taught to press with sufficient force, and in the right direction, and at the proper time, on the uterus, during the pains of parturition."

Although we would not venture rashly to raise our objections to a plan of procedure, which we have never tried; and although we are willing to believe, that much good may occasion-

ally attend this practice, we, nevertheless feel disposed to admonish all practitioners to be careful how they make any thing like a general practice of it. We have in very many instances seen patients complain for days, after delivery, of parts upon which undue pressure was made, during the "pains of parturition;" and sometimes where the pressure was kept up at the particular request of the patient, because it was agreeable to them at the time. May we not contuse the abdominal walls or those of the uterus, by pressing during violent action of those parts, while the limbs of the fetus may present prominent points of resistance to the pressure?

But we return to the article upon which the foregoing advice is founded, in order to finish our quotation.

"The following statement from the London Review, contains the practical lessons of this mode of procedure. Mr. McMorris, a medical officer in the East India Company's service, writes to us as follows: "In one of the numbers of the *Medico-Chirurgical Review*, for 1828, I find a bandage proposed by Mr. Gaithskell, for obstetric purposes. I have no doubt it will facilitate the parturient powers of nature, by the support and pressure which it affords. It is a common auxiliary among the native women on this side of the Indian peninsula, when the progress of labor is slow. Some of the female attendants, in such cases, place their hands on the abdomen of the parturient patient, and press it pretty violently downwards towards the pubis, having first rubbed it with castor oil. This operation is continued till the child is expelled, which generally happens soon after the mechanical pressure is commenced. If the secundines are not expelled with the fetus, the woman is left to rest, with a bandage applied pretty tightly around the abdomen. I have been astonished, in some cases that I have witnessed, to observe the increase of the expulsive pains, soon after this process is put into force." How far this process may be useful, when conducted by means of the hands of a skilful accoucheur, we will not undertake to decide; but we should have fearful apprehensions of seeing the rude hands of the unskilful, applied to any such purpose.

This paper has reminded us of a very remarkable case of herniary protrusion of the entire gravid uterus, through the abdominal parietes. The subject of this affection came under our notice, in advanced life, long after she had been thus affected—the late celebrated doctor Archer of this state, had charge of this case. The woman was respectable and intelligent, and gave the following amount of her case. Doctor Archer being called to assist her in labor, and finding the abdomen entirely split open, and the whole uterus, with its contents, hanging down over the pubis, elevated the parts; and having placed the patient on her

back, applied a folded sheet around the body, as we do in cases of tapping. By a careful attention to this bandage, during the presence of labor pain, the woman was safely delivered.

We think this case interesting in a physiological point of view, since we are convinced, that the abdominal muscles could have but little or no agency in the expulsive process—it must have been the action of the uterus almost exclusively.

We have not seen this lady for several years, but we are pretty certain she was not pregnant afterwards; but why it was so, we do not recollect. Her object in calling upon the present writer, was to ask for aid, on account of an entire protrusion of the hollow viscera of the abdomen; this vast opening was through the abdominal muscles, along the edge of the rectus muscle; we think, on the right side. We had previously seen a great protrusion of the intestines, through the muscles on the left side, a little below the region of the umbilicus. In both cases, we afforded great relief, by means of a bandage formed by applying a ring of sole leather on the part, to the edge of the ring, straps were sewed one side, and buckles on the other, by means of these, after applying the ring, the straps could be buckled across the tumor, so as to make any degree of pressure we might desire. The ring had a flat side of about two inches in width, and was armed with suitable straps, for keeping it on the body—the whole apparatus was lined with cushions of buckskin. In our next we shall notice this subject more fully.

No. 44. *Case of excision of a large portion of the inferior Jaw.* Mrs. D. from St. Mary's county, near the Potomac, became our patient in the month of March, 1831, on account of a fungus tumor, situate on the lower jaw. The teeth on the right side had been lost previous to the existence of the present disease—the fore teeth were gone as an effect of the disease. There was a tumor, of a fungus appearance, about the size of an English walnut, at the symphysis of the jaw. It was pretty evident, that the alveolar processes were much affected, if not absorbed, from some distance beyond the last right incisor, to the first molar tooth, on the left side—the gums, within these limits, were spongy, and disposed to bleed. There was some reason to believe, that the body of the jaw was carious at the symphysis, on account of considerable deformity in that part. Such being the appearances, we prepared to take out a portion of the jaw bone, in the event of the tumor being deeply rooted in it.

We commenced our operation by removing the tumor down to the level of the bone—finding, that the spongy mass penetrated into the bone, we removed a little of it, but soon found that

the body of the jaw bone was a mere shell. We now extracted the first molar tooth on the left side, taking care to act upon sound parts—the gum and muscular structure removed, we proceeded with a very fine dentist bow saw, to saw off the bone. This effected, the *jaw* parted at the chin; this part of the bone being a mere rotten shell. The soft parts being divided on the right side, at an equal distance from the symphysis, as the division on the left side, the saw was again applied. The pieces being dissected out, the operation was completed by carefully dissecting off every diseased appearance, along the inside, and bottom of the lip, taking care, rather to exceed in taking away too much than to incur any risk of the opposite.

The lips not having been injured, no dressing was necessary, except a single handkerchief, laid under the chin, and carried up over the head. We were assisted in this operation, by our kind friend, doctor S. B. Martin, and doctor Rush Jameson. The patient was a lady of seventy, apparently of good constitution—she bore this very painful operation with great fortitude, but was much prostrated. She suffered a good deal of pain for five or six days—on the fourth, however, she was able to set up some part of the day. The soreness diminished gradually after the ninth or tenth day. So soon as the swelling of the parts diminished, it was seen, that the ends of the bone were covered with sound granulations. At the termination of the third week, the wound had healed; the separated ends which were upwards of two inches asunder, at the time of operation, had now approached each other, so as not to be more than three-fourths of an inch apart. When they were about an inch apart, some time in the second week, it was seen that a sort of ligamentous ridge was forming across the wound, from the one side of the jaw to the other—this continued to increase, and there is, therefore, little or no doubt, but the separated pieces of bone, notwithstanding the age of the patient, will unite by ligament, and enable the patient to masticate.

It is a pleasing circumstance, in this case, that instead of there being any deformity, the lady is much improved in appearance; being several years younger about the mouth, in consequence of the prominence of age, at the chin, being removed, together with the sunken state of the mouth. The chin having *come up*; and also, the lip, as the parts cicatrized, gave the patient much of the appearance of youth.

#### PATHOLOGY.

*Presence of pus in the lymphatic vessels.* M. Dumas presented a memoir to the Royal Institution of France, on the presence of pus in the lymphatic vessels of the uterus, and the proliumbar

ganglions, following delivery. The facts, which are the ground work of a voluminous memoir, have been collected at the *maternité*, under the direction of M. M. Chaussier, Deneux and Desormeaux. The facts which science possesses on this subject tend to substantiate those, which, doctor Dumas has described: thus M. Genrin reports, in his *histoire anatomique des inflammations*, that pus has been found in the centre of lymphatic ganglions, that the cellular tissue which surrounds them, was infiltrated with pus, or united by abscess; but he has never found it in the lymphatic vessels arising from the ganglions. In the great number of cases the veins were healthy; however, sometimes they were red, their parietes thickened, and their cavity filled with pulpy matter. He opened a large abscess situated in the superior part of the thigh of a female, in which M. Dupuytren discovered the sub-cutaneous cellular tissue, which surrounded the abscess, traversed by white lines, some of which were of the size of a crow's quill. These were the lymphatics filled with puriform matter. The glands of the loins, to which these went, were injected with the same matter, as well as the lymphatics, as far as the lumbar glands. But neither the glands, nor thoracic canal presented any traces of pus. The presence of pus in the lymphatic vessels of the uterus is generally accompanied by a purulent infiltration in the folds of the broad ligament, in the veins, and the tissues of this organ. These alterations correspond; in general, to the side where they are produced, but this correspondence is subjected to some variety. For, as M. Dangan has observed, it is not rare to see the lymphatic vessels of one side containing pus, where there is effusion, or infiltration in the opposite side. This circumstance may sometimes cause one to doubt the origin of this fluid, if not guided in these researches by this important fact. Although the lymphatic vessels have generally, during pregnancy, a volume and developement greater than common, there are some, whose diameters remain too narrow to permit the color of the liquid, which they contain, to be distinguished through their parietes. When they are divided, a whitish or slightly yellow serum is seen filling their cavity.

There are others, on the contrary, which, in part of their ascent, and sometimes even at a distance from the cavity filled with pus, are distended and sufficiently dilated, to permit the the purulent globules to show their yellow color through the walls of the vessels. Thus in the continuation of the same vessels, sometimes a simple serosity, more or less yellow is found in one place, and a fluid similar to pus in its existence, in another. In a superficial examination of these parts, we may often be tempted to believe, that in this last case, the cavity of the vessel, has itself secreted the purulent fluid; although, in fol-

lowing with care its direction, we may see it approach the abscess.

It is sufficient to recollect this circumstance, to perceive how often this fluid has been not only absorbed, but that the color of its globules are visible only in those vessels which are most dilated. The author has, once however, seen a lymphatic vessel in the internal surface of the uterus, filled with pus, whilst the adjacent tissue was soft, and only infiltrated with a purulent serosity.

Excepting this case, where we ought naturally to conclude, that the pus was the product of the inflammation in the cavity of the vessels; in all those cases which the author has observed, the presence of this fluid appeared dependent on its absorption. The frequency of these alterations, has appeared to M. Dumas oftener on the right than the left side: from the physiological inductions, which arise from the simple observation of these facts, the author concludes: 1st. That the cavity of the lymphatic vessels may be sometimes filled by a purulent serosity, without the least trace of it existing in any of the neighboring parts; this fact causes us to believe, that inflammation of the internal surface of the vessels, has given rise to this foreign product; 2d. That the pus or the fluids differing materially from lymph, and preserving their more or less obnoxious qualities, may be easily absorbed by the lymphatic vessels, but that the ganglions which they traverse, and in which these fluids remain for a longer or shorter period, have the property of submitting them to a particular elaboration, to produce a very intimate combination of their different elements, and to divest them of their consistent and heterogenous parts. (*Review Medicale.*) W. K.

#### MIDWIFERY.

We copy the following interesting paper from the North American Medical and Surgical Journal. Did our limits admit, we could relate cases bearing a near similitude to those related by doctor Warrington. The uterus, we are confident, is subject to neuralgic disease, like most other organs in the body; nay, we believe, in a greater degree, as to frequency, than any other.

*"Prolapsus uteri.*—With the following very interesting cases, we have been favored by Dr. John Warrington of this city.

The great influence which the uterus exercises upon the female economy—the secret but powerful effect which certain derangements of its functions induce in parts of the system apparently remote, the extreme suffering which some displacements of this organ produce—sometimes suddenly and at other times gradually—the fineness of feeling which causes the patient to shrink from revealing her situation (if indeed she be aware of what it really is, which I believe is frequently not the case,) even to him

whom she believes to be the minister of health—should induce the practitioner to make himself acquainted with the various conditions and derangements of this central organism of the female, which are so destructive to her comfort;

There are strong reasons for believing that from derangements of locality, derangements of function frequently ensue; to the former, the aged and the youthful, the married and virgin female, are subject from various causes, and in different degrees. These, though produced suddenly or more slowly, are susceptible of much, and, in many instances, of entire relief, by the careful attention of the practitioner to the nature of the case, and the skilful adaptation of such means as circumstances shall indicate.

From my note book I have collected the following cases, which are given in considerable detail, to show how various may be the symptoms arising from such conditions of this important organ.

1829, 9 Mo.—I was requested to visit S. H. in haste, with information from the messenger that “she had an attack of gout in the hip.” She was of a large muscular frame, latterly her health not good,—upon returning from a ride in the suburbs of the city, she stepped quickly out of the carriage on the pavement, and felt something suddenly give way at the lower part of the abdomen, and when she arrived in her chamber the distress became very severe; she felt a great bearing down, an unceasing desire to pass her urine, a drawing from the umbilicus which caused her to flex herself as much as possible, and apply warm moist cloths under an impression that it was an attack of colic. An acute pain was also felt over the left hip bone, from the ramus of the pubis to a little posterior to the acetabulum. The stomach sympathised with the affected part, violent retchings ensued,—she was very restless,—her skin was covered with a profuse perspiration, while it was cold to the touch; pressure on the umbilical region afforded no relief, neither was the pain in the hip increased by pressure; there was no acceleration of the pulse.

I was led to suspect that there was a displacement of the uterus, and I suggested the propriety of an examination to ascertain the fact. The patient being placed in a suitable position, the os uteri was felt to be within an inch and a half of the os externum. I carefully replaced the organ in its natural situation, and directed the patient to remain in bed with the hips a little elevated. An anodyne enema to be administered, as several doses of laudanum given by the mouth had been rejected during the violence of the pain. Next day was passed comfortably; slight febrile reaction had taken place; this was removed by a gentle laxative; on the third day she was permitted to rise and walk a little; no unpleasant symptom occurring, she in a short time resumed her former habits of activity, and has continued well,



1829, 11th Mo.—E. W. aged thirty-two. A stout woman, accustomed to active exercise in housewifery, was seized with violent vomiting, and soon after with discharges of blood, reported by the patient to be from bowels. By the use of anodynes and mucilaginous drinks these were soon checked, and she was treated for a time as suffering from wandering rheumatism, without, however, any permanent relief, and she at length assented to her friends' directing my attention to the most prominent seat of distress. She then stated that she suffered much pain in the region of the uterus; when she arose and stood erect, she felt as though something would fall away from her, and that she sometimes could not retain her urine, and at others could not evacuate it without some pain and much difficulty. A strange sensation was also felt down the thighs; she has also at times experienced a painful tumefaction on the left breast, which I had considered to be symptomatic of some morbid condition of the genital organs. She has been engaged in hard service, and about six months previously, whilst lifting a heavy weight, felt something suddenly give way in the hypogastric region, and a sensation of something escaping from the vagina. By a little rest, this was soon relieved. In her efforts at vomiting the same symptoms recurred, and have been her worst complaint since. This statement led to the conclusion that the uterus was dislocated; she reluctantly consented to an examination per vaginam. The os tincæ could not be felt; behind the neck of the bladder above the pubes, was a tumor of firm texture, laying nearly at right angles with the superior strait, and extending backward against the rectum. My impressions then were that the uterus was in a state of retroversion; that the pressure of the os tincæ upon the neck of the bladder kept up the constant disposition to expel the urine, and acted at the same time as the obstructing cause to this evacuation. The catheter was introduced with considerable difficulty and with much pain to the patient; a large quantity of urine was drawn off. Opiates were administered to procure rest through the night; the same difficulty recurring next day, a warm semicupium was directed to be used whenever the bladder became distended; this had a slightly temporizing effect. In three days the examination of the condition of the parts was repeated; first in the erect position, to ascertain the effect of gravity upon the tumor; in doing this, a resistance was offered to the finger soon after its extremity had passed between the labia; the same condition of parts presented as before. When placed in the horizontal posture, the tumor receded from pressure. The patient was now directed to go upon the breast and knees (the urine having been drawn off with a catheter,) the hand was introduced in a wedge shape into the vagina, and pressure made upon the fundus of the

uterus, carrying it backward and upwards. till it receded beyond the reach of the fingers. The patient immediately expressed herself considerably relieved. To correct the fetid, and, at times, copious discharge, as well as to relieve the soreness of which she frequently complained, she was directed to use a watery solution of opium with sulphate of zinc, several times a day, as an injection, into the vagina. Under this treatment she improved rapidly for about a week, when by violent and imprudent exertion, the whole mischief was renewed, and somewhat aggravated. Then followed frequent, quick, and small pulse; great pain and extreme tenderness in the abdomen; difficult urination, attended with great heat; short, hurried, and laborious respiration. Eighty leeches were applied over the abdomen. The camphorated tincture of opium and sweet spirits of nitre, were given, in small and frequently repeated doses till the system was composed. Next day she felt better whilst remaining in bed, but, upon rising, felt a return of the pain, and had a discharge of purulent matter from the vagina. Directed her to wash the parts with soap and water, and have the bowels opened by an enema. Having procured a pessary of French manufacture under the name of gum elastic, I placed it under the uterus to support it. This procured her so much relief, that she again used great exertion; in two days she felt a return of pain, and when making an effort to evacuate the bowels, carried the instrument so far forward as to obstruct the urinary discharge. This was relieved by the catheter and the replacement of the instrument; after which, by means of strongly astringent injections, it was retained. About three weeks after, in consequence of a fetid discharge from the vagina, I removed the pessary; the abdomen is yet tender, and cannot easily bear pressure, but so much relief has it afforded her, that she is unwilling to dispense with its use. After cleansing it, I returned it to its place. In about a week subsequently I found her at her washtub, obviously improved in health, and quite able to partake of active exercise.

I have found it necessary to remove the instrument from its situation once in two or three weeks to have it well washed; the discharge becomes very offensive, and erodes the coating of the instrument, the roughened surface of which causes great irritation. The circumstances of the patient requiring public aid, she went into the alms-house during the winter. Whilst there, another pessary of the same kind was used, the surface of which became quickly so much eroded as to require it to be removed, soon after which she relapsed into her former state of suffering. In the fourth month following, she again came under my care, and I substituted one made of glass, and to correct the fetid discharges which attended this situation of the uterus, I directed her

to use a solution of chloride of lime in water. This had a happy effect. Since that time she has been much more comfortable, and during a period of seven months, there has been no occasion to remove the instrument from the vagina, though at one period, after a heavy fall, it became necessary to adjust its position a little. She is now able to perform nearly all the offices of a domestic, with a fidelity which endears her to the family, of my friend, with whom she lives.

1830, 2d Mo. 5th.—A. P. aged sixteen years, being one day at a distance from home, in descending a stair way, slipped and fell, with her whole weight upon the sacrum, against the edge of the step. When she arose, she found herself unable to stand erect without severe pain in the pubic region, and in her attempts to walk home, she was obliged to stop to rest, and seek relief by inclining forward so far as to relax the abdominal muscles, at the same time feeling a constant inclination to propel something from the vagina. I was requested to visit her on the 6th. I found her with a fever, and complaining only of pain in the head and back. For this she was directed to lose  $\frac{x}{3}$  of blood, and have the bowels opened by sulph. magnes. In the afternoon of next day I found her complaining of pain in the back, and hypogastric region. She had attempted to sit in her chair, to rest from the fatigue of lying, and from her position, and apparent suffering (supporting herself by her elbows upon the arms of the chair,) I strongly suspected distended and inflamed hemorrhoids. Upon inquiry respecting the duration of these symptoms, I received the history of the accident, and found there had since been a constant bearing down, with inclination to pass urine, and evacuate the bowels; and when standing, a dread of "something falling away from the stomach." I suggested my apprehensions to the mother, and proposed an examination per vaginam, to ascertain if the uterus had not suffered from the fall. This was consented to, and the os tincæ was found nearly in contact with the orifice of the urethra. At the posterior part of the vagina a tumor was felt, which, on introducing the finger into the rectum, proved, by its rotundity to be the fundus uteri, indicating a retroverted state of this organ.

The patient being directed to go upon the breast and knees, the reduction of the part was effected, by the introduction of the fore finger of the left hand into the vagina, and that of the right into the rectum; pressing upward with the latter, and backward with the former, the fundus was passed upwards, and returned in its natural situation. So much was the patient relieved by this operation, that although she was directed to remain quietly in bed, she very soon afterwards arose, and walked about the room with entire freedom from pain, and the next day I had the satisfaction

to find her at her usual avocation. She has, since the 20th, been able to walk a distance of several squares daily.

4th Mo. 17th.—E. M. G. aged thirty-five, widow, with several children. When pregnant with her last, about four years since, fell upon the ice, and suffered much from violent pain in the back. After parturition she became subject to leucorrhœa and "great bearing down in the back and navel;" her health gave way, and she became emaciated, with constant fever; the hectic flush made its appearance upon her cheek; I suspected her to be laboring under the effects of a displaced womb; proposed an examination, which was reluctantly consented to, as she "could not believe that was her situation." The uterus was found low in the vagina, with its mouth projecting towards the left side of the pelvis. By steady pressure it was passed back as far as the finger would reach. A circular glass pessary was placed under it, and the patient requested to remain in bed a few days till the parts became accommodated to the new tenant. In a short time all the unpleasant symptoms were relieved, and the countenance wore a more agreeable aspect. To the back the emplastr. roborans was applied, and to remove constipation she was directed to take the Pil. Rhei occasionally. At my subsequent visits I found her more comfortable. She menstruated soon after, but was again attacked with a distressing leucorrhœa, though to a much less amount than before. For this she was directed to wash the parts with soap and water, and use an injection of sulph. zinc. in the vagina. 8th Mo. 13th. Patient now enjoys good health, and is able to use active exertions.

4th. Mo. 1830.—E. M. C. aged about thirty-five, mother of five children. About nine years since, soon after her marriage, she became so delicate as to be unable to walk, having a distressing weight and bearing down in the pubic region. Her pregnancies were attended with much distress, her last one particularly so, and what is remarkable, she has felt little or no amelioration after the period of "quickening." She is at present in the fifth month of gestation, and complains most of the time of pain in the lumbar region, with sometimes a dragging sensation about the umbilicus; for this she was twice cupped, with merely temporary relief. She does not refer to any pain in either side, or numbness in the lower extremities, neither is she much relieved by the horizontal position, but a constant uneasiness is felt in the lower part of the back. To get relief, she throws herself on the bed, then rises unrefreshed; thus, as she states, she spends much of her time. Her habits of life are very regular, and she has no fever.

Strong suspicions arose that she was laboring under some displacement of the uterus. Examination gave proof of a relaxed state of the vagina, and a prolapsus of the womb, which was felt to be quite low. With gentle, but firm pressure, it was restored to its proper place. A glass pessary was introduced, and the patient directed to remain forty-eight hours in bed to give the parts time to accommodate themselves to the instrument. On the third day she resumed the charge of her family, and was found actively employed in her domestic concerns, declaring herself to be greatly relieved. She continued well till one day about three weeks subsequently; walking a distance of twenty-two squares, she returned fatigued, with some pain in the back and pubic region; in the evening the pessary was passed by an effort to relieve the bowels, and the pain formerly complained of returned. I was again requested to see her, and finding her very uncomfortable, I again placed the pessary under the uterus. She was immediately relieved. Calling to see her a few days subsequently, I found her closely employed in the duties of her station, quite comfortable. The patient continued to do well throughout the subsequent part of gestation. I removed the pessary about two weeks previous to her confinement, which occurred on the 28th of 9th Month. Since that time she has not required my attention.

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#### MISCELLANY.

We have been requested, by our friend and correspondent doctor R. N. Allen, to give place to the following *reflections* upon our comments on his paper, treating of pneumonia biliosa.

Previously to receiving this communication, we had determined to change our editorial plan, so far as relates to the communications sent us for publication. We did not foresee how likely this procedure would be, to bring us into collision with our best friends. And, having formed such resolution, we shall not enter into any discussion with our friend now in view.

Although we differed with doctor Allen on some points, yet, we considered his paper one of great importance—nothing could have been further from our intentions, than a desire to do him any injustice.

In publishing the doctor's strictures upon our comments, we suppose we are doing all that justice or fair play, requires of us. We would, however, observe once for all, that, so far are we from being fastidious about our own opinions, we shall always be pleased to be corrected: the good of mankind is our only object; not doubting such, also, are the motives of our friends.

"In the editorial remarks appended to my essay on bilious pleurisies, which appeared in your 4th number, my meaning was misapprehended, in several important particulars.

1. In relation to bloodletting.—In regard to the statement, that this operation when improperly performed in the epidemic of 1814—15, was "almost universally and very quickly fatal," I have only to say, that several examples fully confirming it, were related to me by a physician of the highest eminence, who was then in very extensive practice, and who had himself committed the errors which led to the fatal results. It will be observed, that the remark in my essay was not general, but expressly confined to that epidemic.

The observation "*that in doubtful cases*, it is better to refrain from the lancet," was also limited to the disease of which I was treating. Thus applied, I believe it to be strictly correct, and of the highest importance; and am happy to be sustained in this opinion, by the most eminent practitioners in this county.

From the opinion, that slight degrees of morbid excitement, cannot be reduced "with less expenditure of the vital energies, by purgatives, than by the lancet," I must express my strong and decided dissent; and in this also, I am supported by the opinion of every experienced physician with whom I have been in the habit of conversing. The evacuation of the bowels by purgatives is not only safe, but indispensable in very numerous cases, where bleeding would be wholly improper.

But supposing that any given degree of excitement could be safely subdued by *either* of these modes of evacuation, it will often happen that the patient can sustain *one* of them, *but not both*. The reduction of the excitement to a proper grade by the lancet, would not at all diminish the necessity for evacuating the alimentary canal; and in all such cases, we should adopt that mode of depletion, which, to use my former words, "is most congenial to the nature of the disease." The cases where the alvine evacuation, rendered indispensable by the bilious symptoms, is also sufficient to remove any excess of excitement, constitute a numerous class; and in every one of them the previous use of the lancet would be obviously injurious, while not unfrequently it would be fatal.

My sentiments in reference to the substitution of "purgatives, emetics, antimonials, &c. for the lancet," have been entirely misapprehended. Whenever bleeding is clearly indicated, I acknowledge no substitute—it is only in *doubtful cases*, that I would use other modes of depletion. This caution is the more necessary in bilious diseases, as we cannot foresee the precise degree of exhaustion which may follow other indispensable evacuations; and in cases where the propriety of the lancet was *at first*

*doubtful*, the exhaustion thus unavoidably produced, might be increased to a dangerous extent, by a previous bloodletting.

2. In relation to the substitution of remedies for each other, a misapprehension of my meaning has also occurred. I never, for a moment, intended to assert that any one *class* of medicines, or any one *mode* of evacuation, can, in general, be properly substituted for another. I only meant that several remedies *of the same class* may be, and actually are used with equal success, by different practitioners. Examples might be given, but my reasoning is too obvious to require illustration. The disposition to extol exclusively those *individual articles*, which each practitioner may have been in the habit of employing, is one of the most common and most fruitful sources of false experience, and of vulgar and unphilosophical error. Which of the bitters has not been much extolled by some partial and enthusiastic writer, to a level with the peruvian bark? yet with some difference of power, they all possess nearly similar virtues; and the cinchona still retains its place at the head of the class. I decidedly dissent from the opinion expressed by the editor of this journal, that *every medicinal agent* has some appreciated peculiarity of action; and am clearly of the opinion, that with the exception of tartar emetic, bark, calomel, opium, and a very few other remedies, no *one article* would be much missed from any of the classes of the *Materia Medica*. I think also, that there are very few cases where any two practitioners, however judicious, or however similar their views, would prescribe exactly the same articles; nor would the success of either be at all affected by the discrepancy. The editor says, that "to talk of substituting purgatives, emetics, antimonials, &c. *where bleeding is the appropriate remedy*, is to talk incorrectly." So far I perfectly concur with him; I never for a moment, thought of such a substitution, where it could be determined that bleeding was the proper remedy. Although I by no means believe in the doctrine of *peculiar antidotes*, when speaking in reference to the *materia medica* in general; yet I should myself contend that bloodletting, when clearly indicated, admits of no substitute at all equivalent in effect. The same may be said of a few other powerful remedies; but the number of these is very small.

I am far from believing the rules of practice, which I have given for the treatment of bilious pleurisies, to be of limited or local application: I am confident that they may be safely and usefully applied to all diseases of that character occurring *throughout our country*, wherever the climate is at all similar. In this sentiment I am fully sustained by my worthy and able friend doctor Robert H. Archer, who has had a personal experience of more than thirty years, in various parts of Maryland and Pennsylvania; and

whose father possessed, perhaps, as large a share of medical experience, as was ever enjoyed by a single individual in this state. My own experience too, the results of which were given, has been extended through at least ten years—embracing all the varieties of atmospherical constitution, occurring in that period.

It was stated in my essay, that “every bilious pleurisy of a middling grade, tends to the typhoid type.” By this expression it was only meant, that the typhoid condition may easily be produced by injudicious depletion; and not that it does in fact commonly recur. On the other hand, it is stated at page 597, that the disease “terminates without the supervention of typhoid symptoms, in a great majority of cases.” I am disposed to think upon reflection, that this occurs in nine cases out of ten.

In submitting these remarks, I have been influenced by a desire to sustain a mode of practice, in the safety and efficacy of which, I have the strongest confidence; rather than by any anxiety about vindicating myself or my opinions.”

We were requested, by the author of the essay on typhus fever, in the present number, to insert the following foot notes—they were mislaid and forgotten—we have thought proper to place them in our miscellaneous department. The first relates to observations, by the author on the theories of doctor Rush, page 33. The other relates to causation, and should have been placed page 34.

*Note by doctor Allen, which should have been placed page 33.* The above stricture on the writings of doctor Rush, may perhaps seem to savor of harshness. I believe that they have conferred on the profession some benefits of great importance; but am persuaded, that their author has committed two great cardinal errors. 1. In conveying the idea of the propriety of depletion, much more uniform and extensive, than is in fact safe or proper in ordinary cases of disease. 2. By rejecting the established distinctions among diseases, to such an extent as to introduce a dangerous want of discrimination in practice.

Thus he has plainly confounded scrofulous phthisis, with the results of ordinary chronic inflammation of the lungs. How many hundreds have fallen victims to his advice of SALIVATION, as a remedy in this disease; not marking the extent to which the practice should be carried, and pushing it even into what he denominates the *hectic* and *typhus* stages!

*Second note by doctor Allen, which should have been placed page 34.* The above remarks in regard to causation, arose from too pat-



sive an acquiescence in the doctrines of doctor Brown. Whatever it may be, which enables us to infer the relation of *cause and effect*, it has become clear to my mind, that *invariably antecedency*, will not justify the inference of *causation*.

We have been requested by the author of the essay upon pneumonia biliosa, in our first volume, to insert, in the present number, a long list of errors which occurred in printing that article.

In reference to the work from which the motto was taken, for *Prof.* read *Præf.* which I desired to refer to the preface.

Near the middle of p. 590, for *impressions* read *impression*.

Near the bottom of the same, for *inculcated* read *inculcate*.

P. 591 in the first line, for *and as the nature of the subject admits, &c.*, read *and TO DEFINE AS CLEARLY as the nature of the subject admits, &c.*

A few lines lower on the same page, for *practicable* read *practical*.

P. 593 for *peculiar treatment* read *Herculean treatment*.

P. 596 below the middle, for *peculiar liable*, read *peculiarly liable*.

Near the bottom of the same, for *one half the whole number*, read *one half of, &c.*

Page 599, near the top, for *tolerable safe*, read *tolerably safe*.

Page 600, near the top for, *and every case*, read *and in every case*.

Page 601, 3d paragraph from the top, read for *on the decline of those, &c.* read *on the decline of those cases*.

Same page, 5th paragraph, for *thing* read *think*.

Same page, beginning of the last paragraph, for *it may, &c.* read *they may*.

Page 603, about one third down, for *asthenic tendencies* read *asthenic tendency*.

Same page, about the middle, for *this action*, read *their action*.

Page 604, just below the middle for *even the*, read *even though*.

Same page, a little lower down, for *curative progress*, read *curative process*.

Page 611, near the middle, place the word *expectoration* immediately after the word *perspiration*.

P. 613, near the top, for *almost one of, &c.* read *almost always one, &c.*

In the last sentence of the essay, *professional*, read *personal*.

None but those acquainted with the subject, can be aware of the difficulty of getting manuscript correctly *set up* until compositors become acquainted with the hand writing of authors, we hope, however those blemishes will soon disappear.

**WASHINGTON MEDICAL COLLEGE OF BALTIMORE.**

The usual course of instruction will commence in this institution, on the last Monday in October, and continue four months.

**HORATIO G. JAMESON, M. D.** on Surgery and Surgical Anatomy.

**SAMUEL K. JENNINGS, M. D.** on Materia Medica and Therapeutics.

**WM. W. HANDY, M. D.** on Obstetrics and the diseases of women and children

**J. H. MILLER, M. D.** on the Theory and Practice of Medicine.

**SAMUEL ANNAN, M. D.** on Anatomy and Physiology.

**JAMES B. ROGERS, M. D.** on Chemistry.

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**OBITUARY.**

We have to perform the melancholy task, of announcing the death of four of the members of the Medical and Chirurgical faculty, of the state of Maryland, since the publication of our last number.

Died in the month of September, 1830, doctor **HENRY JOHNSON**, for several years a respectable practitioner on Fell's Point, Baltimore. Doctor Johnson was a young man of gentlemanly deportment, as well in his intercourse with the profession, as with society at large. He possessed a feeling heart, and a willing mind towards the alleviation of the afflictions of the poor.

Died in the month of October, doctor **WILLIAM COSKERY**. Doctor C. had just entered upon the duties of his profession, when consumption sealed his fate.

Died in the month of January, 1831, doctor **JOHN HARPER**. Doctor Harper was a native of Ireland, and graduated at Glasgow. He was well known as an oculist.

Died in the month of April, 1831, professor **ELISHA DEBUTTS**, who was extensively and favorably known as a teacher of Chemistry in the University of Maryland.

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ORIGINAL ESSAYS.

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ART. I. *Ueber Lagophthalmos und Ectropium a carie marginis orbitalis et Synechia palpebræ inde orta.*

*Observations on Lagophthalmos and Ectropium from caries of the margin of the orbit, and Synechia thence arising—by professor Dr. F. A. VON AMMON—taken from the "Zeitschrift für die ophthalmologie; Ersten bandes, erstes heft;" of which work he is editor.*

[THERE appears to be a good deal of ambiguity respecting some of the terms applied to diseases of the eyes. It may not be amiss, therefore, to endeavor to give some definite meaning to the technical terms used in the above heading. We are not a little puzzled to know what professor Von Ammon means by the term, synechia of the palpebræ, seeing that this term is usually applied to an adhesion of the cornea to the iris. Beer in his "*Lehre von den augenkrankheiten*" notices two kinds, the anterior, and posterior—the former being an adhesion of the cornea to the iris, and the latter an adhesion of the cornea to the lens—and, we may well suppose that, these adhesions will, generally, so derange the pupil as to interrupt the sight, sometimes even to blindness.

The terms lagophthalmos, and ectropium, although significant, have been strangely confounded and misapplied. Thus Galen treats of *eversio* under the term ectropium, applying the term to both the upper and lower lid—while Paulus Egineta applies the term lagophthalmos to the upper lid; and ectropium to disease of the lower lid. Some writers apply the term ectropium to eversion, whether above or below; (but the lower lid is most

liable to this disease,) and the term lagophthalmos to a thickening and redness, with a *slight turning out*. And hence the derivation of the terms; ectropium, from *εκτροπη*, and lagophthalmos from *λαγος* a hare, and *οφθαλμος* an eye. Ectropium, is, therefore, strictly speaking, an eversion of the eyelid—lagophthalmos is a thickening and redness of the edge of the lid, which gives the eye the resemblance of the eye of a hare.

Our author throughout seems to view ectropium and lagophthalmos as different affections, but does not particularly designate either. It would seem to be his intention, rather to show that both, or either of those affections, may attend on a carious state of the orbitary bones.

We do not recollect having seen a disease exactly similar to that noticed by our author, but it seems to have been a good deal common within his observation; and has also been noticed by doctor Behr, our friend at Altona. And since this peculiarity, we mean the caries, occasionally is found associated with ectropium, we deem the paper very important, if it were for no other reason than awakening attention; since, it is obvious that any operation practised upon the eyelid, with a view to cure the ectropium, would be worse than useless, so long as any of the adjacent bones are in a state of caries, and, according to our author, this indeed, is sometimes the cause of the disease of the lids.]

Among writers of modern times, Benedict\* has unquestionably discussed the subject of ectropium, fundamentally and thoroughly. Ph. V. Walther† has enriched the same with a description of a species of ectropium, which he calls ectropium anguli oculi externi, and recommends a new operation for the removal of the tarsus. Not the least common of the causes of ectropium and lagophthalmos hitherto overlooked, so far as is known to the author of these remarks, or not sufficiently attended to, as the subject demands, is caries of the margin of the orbit.‡ Some months since Dr. Behr of Altona, drew attention to this affection.||

For many years past, I have seen a good deal of ectropium, which seemed to arise from a wasting of the external part of the eyelid, together with the inner or the outer edge of the orbit: and in consequence of this kind of ectropium, producing so pe-

\*Handbuch der practischen Augenheilkunde, iii. Bd. 1824. in 8. S. 15—27.

†Ectropium anguli oculi externi; eine neue Augenkrankheit, und die Sarcophagie eine neue Augen operation: im Journal für Chirurgie und Augenheilkunde von F. Gräfe und V. Walther. B. IX. St. 1. pag. 86—93.

‡Von diesem Uebersehen spricht der Verfasser sich selbst nicht frei, da auch er in dem Artikel Augenliderauswärtskehrung, (S. das Berliner encyclopædische Wörterbuch der medicinischen Wissenschaften, B. IV. S. 144—187) die caries orbitæ in dieser Hinsicht unerwähnt lässt.

||Rust's Magazin der gesammten Heilkunde. B. XXI. Hft. 3.

enliar a disfiguration of the eye, in most cases, I have been induced to believe, that the subject is worthy of a more minute description.

The eyelids are flaps or folds formed of the cuticle and muscle of the orbit, and are rather a continuation of the skin of the eye. They are only fastened to the inner side of the orbit, by the *tendo musculi orbicularis*, and lying free on the edge of the orbit. The orbit has several important fossæ, called *fossæ orbitales superiores et inferiores*, which are the continuations of the upper and under orbital fissures. They are covered like the remaining parts of the orbit, and particularly the bones, with a fibrous skin, which is called the *periorbita*. These parts are not unfrequently the seat of a peculiar inflammation, particularly in scrofulous individuals, which mostly runs into a vicious suppuration, often, also, attended with caries; causing injury to the adjacent parts of the eyelids, by which they become distorted and offensive to the sight. This scrofulous inflammation of the *periorbita* occurs mostly in children, from 2 to 12 years of age. I have never observed this affection to be seated in these parts alone, but in conjunction with the disease of the *periorbita* there were similar scrofulous affections on the fingers, toes and other bones, embracing also their fibrous coverings. The course of this inflammation is chronic; it paves the way to lymphatic swellings which H. V. Walther\* calls suppurations without inflammation.† If, then, one observes in these lymphatic swellings, that nature strives to create inflammation, yet, on account of the slight amount of life of their united organism, and of the separate parts, and on account of the low sunken nervous power and want of plasticity of blood, the inflammation cannot show itself; so we see, from the want of symptoms of inflammation, (such as local heat, more often redness, and general reaction of the circulation,) plainly enough, that inflammation of the periosteum will continue longer; and there will be a watery and ichorous product from inflammation of the periosteum in these cases. And here, there is in the beginning, a purulent tendency, which goes on, till disease of the periosteum makes its appearance in many places; and the writer of this paper, has seen more than once, individuals who were free, in their infancy, from affections of the orbit or the *periorbita*, become subjects of lymphatic swellings in adolescence. In such subjects, we see that this affection of the orbit, and the *periorbita*, is a local indication of a general purulent diathesis

\*Im Journal für Chirurgie und Augenheilkunde, 1. Bd. 5. Hft. Ueber die wahre Natur der Lymphgeschwulste, p. 602.

†[The kind of inflammation here noticed, ending in abscess, has given rise with the French, (see Boyer,) to the term cold abscess.]

arising from scrofula; we would refer to the theory of Ph. V. Walther, concerning the origin of lymphatic swellings; and go into the consideration of inflammation of the periorbita and its consequences.

Frequently in consequence of external violence from blows or falls; also without injuries of this sort, in scrofulous subjects, and where pædar-throcæ, or lymphatic abscesses in the shin-bone, forearm, or lower jaw, already exist, sometimes with, and sometimes without pain in the region of the superior edge of the zygomatic process, or chiefly about the external edge of the orbit, (I have never seen this in the inner and upper edge of the orbit,) mostly without, seldom with external redness; and, without great pain, we see a swelling, which goes on gradually to increase, and then afford fluctuation; sometimes we find conjoined with this, edema of the eyelids; occasionally, a slight, and sometimes a violent inflammation of the conjunctiva, with more or less of intolerance of light. As the swelling increases, so do the edema of the eyelids, and the early slight symptomatic fever: and the accompanying redness, also increases, and mostly assumes a darker color: the swelling now grows more and more, and forms, if remedies are not resorted to, a plainly fluctuating point, which soon bursts and discharges an ichorous, or a more lymphatic kind of pus. It is to be remarked, that the opening is almost always formed in the eyelid opposite to the upper or lower edge of the orbit. When this occurs, the tumor begins to diminish, though it does not entirely disappear; it continues, together with the redness of the external covering, and of the conjunctiva of the ball of the eye. The ichorous discharge causes a slight excoriation around the opening. If the condition of the orbit be now examined, with a probe, a carious spot will sometimes be found, but not always; we can plainly feel, that the periorbita, at the diseased spot, is in a loosened state. About this time, the edema of the lids disappears, as well as the redness of the conjunctiva, although isolated vessels, almost always under the upper or lower part of the lids, (when those parts are diseased) make their appearance, and run upon the cornea. While the suppuration continues, the diameter of the lids becomes less, which is also the case about the opening leading to the abscess; so that the spot formerly swelled sinks in, producing some deformity about the parts. Whether the abscess be large or small, or whether the disease of the periorbita has a greater or less extent involving the bones, so in proportion will be the attenuation in the eyelids; and, likewise, the union of the soft parts to the edge of the orbit will be of proportionate extent. Sometimes, though seldom, this union is formed externally to the upper edge of the orbit. I have observed it once in the upper, more fre-

quently in the under edge, where there was always a wasting of flesh on the bones about the processus zygomaticus. If the eyelid falls down properly on the edge of the orbit, the union ought not to be prevented. Sometimes the inflammation is kept up by splinters of bone, the product of caries.

In an examination of such a union in a child, who died of a general scrofulous disease, I found in the ectropium of the under eyelid, in consequence of caries of the under edge of the orbit, so great a wasting of the periorbita, of the bones of the orbit, and of the attenuated yet hardened eyelids, that it was impossible to separate the different parts, they formed a firm, compact, cartilaginous, fibrous mass.

The consequences of this union of the eyelid with the inner or outer edge of the orbit are, according to the place of junction, and according to the shortness or length, the tightness or looseness of the eyelid at the time of healing. If there is a union of the upper eyelid with the outer or inner edge of the orbit, there follows a shortening, or distortion of the lid, and in consequence a hare's eye, (*Lagophthalmos*). The patient can no longer, except with much pain, or, perhaps, not at all, raise the upper lid, and the eye remains covered. I have observed many such cases, particularly in the union of the upper eyelid with the inner edge of the orbit, so that the eyelid was not only shortened, but its situation changed; and, indeed, in such a manner, that a partial ectropium was formed. (V. Walther's *ectropium anguli externi*.) In these cases, the patient can only shut two-thirds of the upper eyelid of the inner side, while the outer third is turned upward, by which not only the eye, but the whole countenance is disfigured. The same is the fact, in regard to the outer side of the under eyelid. Sometimes the eyelid falls down. The union on the outer and lower edge of the orbit, is commonly greater than on the upper lid. The *ectropium palpebræ inferioris* is greater, and occurs oftener, and one can see, in addition to the deforming symptoms of ectropium of the lower lid, the greatest part of the lower edge of the orbit, by which the countenance, particularly if both lids are distorted, resembles somewhat the appearance of a skull. Not unfrequently both lids are affected by the disease. Among all the cases of *ectropium inferioris anguli externi*, I have only observed one where there was a union of the lower eyelid with the edge of the orbit. There was also caries, and a wanting of a piece of bone of the lower edge of the orbit. In ectropium of this kind, there is sometimes associated, particularly among scrofulous children, a loosening of the connecting folds of skin, making ectropium *sarcomatosum*.

I must not pass by in silence this fact, among the numerous cases which I have had the opportunity of seeing, that the pa-



tients or their parents, or those around them, mentioned as a circumstance connected with lagophthalmos and ectropium, that, if the surgeon laid open the eye-lid, during the stage of inflammation or collection of pus, it was found, immediately after the operation, that the lid was grown fast to the bone.

Less depends on the time of opening the abscess, if by this ectropium or lagophthalmos is formed, than as to the place, or the kind of the opening.

According to the known rules of surgery, the highest point of the fluctuation was chosen as the point for opening the abscess; and it was generally punctured at this spot. This was generally in the region of the eyelid, (as we have already observed,) just where it rests upon the edge of the orbit, whose periorbita is diseased, and some of its cellular structure absorbed. The opening soon closes up again as well as the walls, which fall inwardly: or there remains an inflammation in consequence of caries of the edge of the orbit. To prevent this, is the main object in the treatment: for if the abscess is opened in an improper place, then almost all measures are in vain: the falling in of the edges into the opening, and, indeed, on the edge of the orbit, will prevent union to the last.

The author has employed the following treatment, and not without good result, for inflammation and suppuration of the periorbita. Where a graduated antiphlogistic plan of treatment did not prevent the inflammation of the periorbita from running into suppuration, or where it was employed too late; in such circumstances, recourse was had to scarifications and to internal remedies, (of these we would mention the *terra ponderosa salita*, with the *aqua laurocerasi*, and the *cicuta* in the form of extract;) and also, a tight bandage. This treatment was very often found successful. If the disease had progressed too far, the fluctuation already perceptible, the pain great, and the tumor increasing, and it was too late for the employment of the bandage, with the graduated compress, the abscess was opened; and although absorption might sometimes possibly occur, yet it never did when fluctuation was at its height in the tumor. A portion of lint was now introduced into the wound, for the purpose of keeping it open; and it was then covered with a simple, unirritating gum plaster; the eyelids were gently brought together, as after the operation for cataract. A cure is not expected in a few days:—months were required for a cure, among the best cases. The greatest attention is always to be paid to the proper position of the lids, particularly during the first few days, or weeks after the opening of the abscess, lest there be deformity of the countenance, from the irregular situation of one or both of the lids. Patience is necessary on the part of the patient, and his friends;

and also on the part of the physician, who must not neglect to turn his attention to internal remedies, to the diet of the patient, &c. The further the opening is made from the edge of the orbit, the greater the care required in placing the eyelids in a proper situation: and the more judicious the selection of internal remedies, the less is deformity for life to be feared, in the region of the orbit.

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ART. II. *Observations on Syphilis, intended to show its protean nature.*

It must be admitted, we think, that syphilis is a disease calling, in an especial manner, for our most serious attention, on account of its very general prevalence, the uncertainty of its pathological nature, its latent and often unsuspected existence in the individual, its transmission from parent to the offspring, and the unsettled state of the professional mind, with respect to the mode of treatment. Such being our reflections on the subject before us, we have been led to believe, that, our experience, extending through upwards of thirty years, may not be altogether unimportant.

We find a very interesting review of the history, of the origin of syphilis, in the *Edinburgh Medical and Surgical Journal*, Vol. 33, p. 165, (for Jan. 1830). This review purports to be an examination of several publications on the disease in question:—These are the works of Tiene, M. D. Venice, 1823—Von D. V. A. Huber, M. D. Stuttgart und Tubingen, 1825. Von G. F. Handshuch, M. D. Wurzburg, 1826. John Bagot, Surgeon, London, 1829. John M. Titley, M. D. 1829. The article before us, amounting to 17 pages, is entirely devoted to the history of syphilis.

The reviewer after enumerating a number of authors who have been engaged in different ages, and in different countries, in the question of the origin of syphilis, terminates his observations by a few conclusions somewhat general; and by promising to resume the subject. We have examined the succeeding numbers of the *Edinburgh Journal*, but find that the writer has not yet fulfilled his promise of reviewing the books which constituted the subject of his review, up to January, 1831.

The review is a most interesting document as regards the subject in question, in a literary point of view; but since it is almost entirely devoid of any practical information, we have not thought proper to lay it before our readers—when the continuation of this review shall come to hand, we have no doubt, something important may be expected, for insertion in our pages.

Among the general conclusions to which we have alluded, the following may not be deemed unimportant. Historians have contended for the American origin of syphilis; some have ascribed it to the Jews; some to astrological influences; some have considered it uncertain; and others have been satisfied by striving to fix it upon ages of antiquity; in which last opinion we concur, as does Mr. S. Cooper.

"We think it must be admitted, (says the reviewer), that previous to the new disease, at the close of the fifteenth century, there existed various morbid states of the genital organs, and more especially a discharge from the mucus surfaces, attended with scalding. To this, in all probability, are to be ascribed the complaints described in the middle ages, under the name of *arsura*, *scolagione*, or *brenning*, and which Breckett showed, existed previous to the appearance of the peculiar new disease."

"It is almost superfluous to remark, that, notwithstanding all the research with which we have shown the subject to have been investigated, the fact as to the precise origin of the venereal disease is not determined. It is only shown that it did *not* originate and was not exported from America. The Maranic origin, or that from the Portuguese Jews, so strenuously maintained by Gruner, is as little tenable as any other."

Albeit, an attentive reading of the historical disputes, exhibited in the review before us, strongly impresses one's mind with the belief, that the various facts do not more forcibly conspire to show the uncertainty of the origin of this disease, than they do to show that the genital organs are liable, and have been from the dawn of medical history, to various diseases. Indeed, we think, this circumstance is sufficient to satisfy an unprejudiced reader, that what has been considered as syphilis, is not only of a protean nature; but, in reality, different diseases have been viewed as such, not only by the earlier moderns, but at the present time, notwithstanding the vast improvement which has been made in medical knowledge, within the last fifty years.

When we look at the several classes of skin diseases, at the classes of febrile diseases, or neuroses, exanthemata, &c. we every where see blendings, with shades so imperceptible, that we can never with absolute precision, say where the one ends, or the other begins. See, for instance, the varieties of herpes, of fevers, the acknowledged product of malaria, &c. and, although we cannot in all instances place each and every case in its precise relation to other varieties of its class, yet we have the clearest evidence of a peculiar character. These remarks apply also to inflammations; they are all but one disease, yet there are many varieties. We hold that there is in nature a kind of definite character to certain diseases, constituted of a certain set of phe-

nomena, as the result of some remote cause; and as the several cases of disease, in any one class, shall more or less approach the definite character, so shall they be more or less pure of their kind; and so of syphilis—certain phenomena, which we cannot stop here to describe, arise from a venereal poison as their remote cause; but as all persons differ in their organs and organism, so may the poison differ. Again, this difference of organization in the person receiving the poison, may modify its action. In all these cases, we will have a disease more or less purely syphilitic; and as the circumstances may thus vary, within the phenomena which are essential in the constitution of syphilis, so may we readily believe, that these vagrancies may pass without the family, or suit of phenomena, peculiar to syphilis. We have entered into these explanations with a view of showing what we mean by the term pure syphilis.

That this view of the subject is correct, we think, is abundantly shown in the phenomena attending inflammation; though erratic the tout ensemble may be such, that no one will hesitate in placing them in the class of inflammations; and, if we carefully extend our inquiries, we shall find cases presenting much resemblance to inflammation, yet they are but irritations; and hence it is, that we may, with propriety, speak of pure inflammation, by which we mean, a certain suit of phenomena, affording, by comparison, a sort of *standard*.

If such be so obviously the nature of other diseases, how strange is it that the medical world have been so long looking upon venereal diseases, as consisting of but one or two forms, as has been so generally the case?

If then the disease has been so loose in its phenomena that the most patient research, by the most able inquirers, has not been attended with any satisfactory result as to the time or place when this disease was first known? If we see that all other diseases vary, and, so to speak, keep up a kind of play around a certain *standard*; being more or less *pure*, as they more or less approximate the *standard phenomena*? If we see great diversity in the symptoms, both as relates to the primary and secondary symptoms:—If we see men of unquestionable veracity and of ability, coming to directly opposite conclusions, as to the employment of certain remedies, to what shall we refer all this?

We would answer in the words of Samuel Cooper, that “the further the subject before us is investigated, the more reason we find to join Hunter, Carmichael, and others, in the belief, that what has been generally considered as syphilis, is not one disease, but several, and that *other diseases* may not only resemble the venereal in appearance, but in the mode of contamination; proving themselves to be poisonous, by affecting the parts of

contact; and from thence producing, not only immediate consequences, similar to buboes, but remote consequences, similar to the lues venerea."

It is not our intention to enter into a general inquiry on the subject, but as we have offered some reflections on the proteiform nature of syphilis, we deem it proper to give a brief description of what we mean by *pure syphilis*, or the *standard* phenomena of this disease. We agree with Mr. Carmichael, who, we are told, by Mr. S. Cooper, "also adopts Mr. Hunter's definition of chancre, and points out, that it is the solidity, firmness, and abrupt termination of the surrounding induration, which chiefly distinguish it from other ulcers." According to Mr. Hunter "a true chancre is somewhat of a circular form, excavated, without granulations, with matter adhering to the surface, and with a thickened edge and base."

Mr. Carmichael confines the primary symptoms to the state of ulceration just noticed; and, the secondary, to scaly blotches, as described by Willan; the excavated ulceration of the tonsil of Hunter, or when affections of the bones are complained of, attended with nocturnal pains, in the shafts of the long bones, or decided nodes or enlargement of the bones. We are aware, that of the last symptom it has been said, that, it is mostly, if not always, the result of mercurial treatment. We will not stop to acknowledge or deny this opinion, but we can truly say that, we have uniformly found it yield to a mild mercurial treatment; and moreover we shall presently give a sketch of our treatment, and can most solemnly aver, that, to the best of our knowledge, no patient, treated by us, for the primary disease, ever had this form of disease, we mean disease and enlargement of the bones.

We by no means admit that the arrangement of the venereal diseases by Mr. Carmichael, embracing the genuine and the erratic or pseudo-syphilitic, is absolutely correct; but we do believe, that under this arrangement, we may investigate, and arrive at all the necessary indications for the treatment of the disease, that are necessary for a successful practice. This being our impression, we have thought proper to exhibit a brief exposition of his arrangement. "He proposes (says Mr. S. Cooper) also for venereal diseases a new nomenclature, founded on the character of the eruptions, which he thinks affords the most certain criterion, and he names the true chancre and its consequences the scaly venereal disease. We feel no particular partiality for this definition of the primary disease, on the contrary, we can see no propriety in coupling the scaly eruption with chancre—the one being almost a necessary condition of any future constitutional disease, while the other never is to be seen when proper remedies are employed, to arrest the primary dis-

ease; at least, such has been our experience. Than the next division of the arrangement of the author before us, we are satisfied, nothing more accurate has fallen under our notice.

"Mr. Carmichael, (says Mr. S. Cooper,) divides the primary diseases which have been confounded with syphilis, into two classes; the first comprehends 1. A superficial ulcer, without induration, but with elevated edges. 2. A similar ulcer, destitute not only of induration, but of elevated edges. 3. An excoriation of the glans penis, and internal surface of the prepuce. 4. Gonorrhea Virulenta"

In the second class, Mr. Carmichael comprises the two remaining species of pseudo-syphilitic disorders, viz: the phagedenic ulcer, and the sloughing ulcer." We would here object to the term sloughing ulcer, as but imperfectly expressing the nature of the disease—or if Mr. Carmichael has seen a disease requiring this epithet, we have seen a form of the disease which he has not; we mean a rapid mortification of the penis, sometimes embracing but a part, at others, cutting away nearly the whole member in two or three days; and this, too, unquestionably arising from impure connection. Consistency of language, will not admit of our classing this affection with ulcers—we should prefer the term venereal mortification.

We may not find a more suitable place to remark, that, we have seen several cases of this affection, but never in our own patients,\* at the same time, we by no means ascribe any want of

\* Since stating this fact, it has been our lot to fall in with this form of the disease. We were consulted by a gentleman of rather intemperate habits, who, having contracted chancres around and just behind the corona glandis penis, entirely neglected himself, alleging that he had not been exposed to the usual source of the disease. The whole member was now much swelled and greatly inflamed, more particularly the prepuce; the ulcerations, though small, were numerous and pretty deep, with a foul white bottom—the prepuce could still be retracted, but not without difficulty. Saline purgatives were given with antimony; and, two grains of calomel daily, and a solution of the murias hydr. in the proportion of one grain to six ounces of water, applied by wetting lint, to be laid under the prepuce. I was called on in the course of four or five days, and found my patient in great pain, with some increase of swelling, and deeper redness of the parts. There was not at this time, nor had there been, any running from the urethra. An emollient poultice was directed, and forty drops of laudanum given, to assuage the pain. In the morning, I found about the size of the sixteenth of a Spanish dollar, in a state of sloughing, and quite black; and also a lividity along the anterior edge of the swollen prepuce. The parts were covered, for some considerable distance around, with fly plaster—vesication was effected, and the sloughing process thus arrested.

This was renewed in the evening, and the whole member enveloped in a covering of the carrot and yeast poultice. The gangrene advanced but

skill to the gentleman who preceded us in treating those cases. They assumed this condition, we have no doubt, owing to a peculiar vitiation of habit. Such was the rapidity of the sloughing process, in three cases, that we were called in on account of hemorrhage, arising from the corrosion of one or more arteries in the penis. Our experience in this alarming disease, is most decidedly in favor of cantharides, as a local application, while we give opium pretty freely, associated with some mineral acid, kinine, or, antiphlogistics as the symptoms may indicate. We always surround the penis with fly plaster, and continue to dress the parts daily with the same, until we are satisfied the sloughing has ceased, when, some emollient dressing will be more suitable. We have, no doubt, saved two penes by this mode of treatment, not, however, without considerable deformity in one case.

An opinion is sometimes entertained, (says Mr. S. Cooper,) that the venereal disease is modified by climate, and that it can be cured in warm countries, by means which would completely fail in colder parts of the world. The facility of curing the venereal disease in the West Indies, the Brazils, &c. with sarsaparilla, guaiacum and other vegetable productions, is a fact, which has long been familiarly known."

When we look to the want of any settled opinion in the history of this disease—to the more and more unsettled state of medical opinion, as to its nature and its mode of cure—when we see men equally entitled to credit, stating that they have cured this disease by remedies which others consider detrimental—when we see the opinion held, that there is but one common poison—that there are two poisons (gonorrheal and syphilitic)—that there are many poisons—that there is syphilis and pseudo-syphilis—and lastly, when we see every class or genus of disease presenting their varieties, can we come to any other

little, but still a considerable portion of the prepuce sloughed from its anterior end to its attachment behind the glans—about one third sloughed out. In two days the parts had separated, but the raw surface had a phagedenic appearance—the poultice was therefore continued two days longer. At this time the swelling and inflammation had almost disappeared, and the wound looked better. During the inflammatory stage, saline powders were given, so as to keep the bowels pretty open during the day—at night moderate doses of laudanum; but so soon as the inflammation began to abate, and the sore to show a low degree of action, we gave two grains of kinine, every two hours; we think, with much advantage. This was continued twenty-four hours, after which, it was given once in three hours for twenty-four hours more—then changed to three times a day. On the 6th morning, from the commencement of the sloughing, we left off the carrot poultice, and dressed with lime water and sublimate put upon lint. Parts look well, and health apparently good.

conclusion than that syphilis is not only diversified in its nature like other diseases, but that like most other diseases this too is for ever varying its general character, always, however, revolving around a sort of central standard. In a word, we believe that syphilis is proteiform in its nature, that, any given kind of poison will not necessarily give rise to that form of disease, of which it is the product—that, it is not only changed by climate, but, in the same climate or country, it may, and does occasionally change its nature, and requires more or less modification in the treatment; but after all it is a wonderful fact, that for upwards of thirty years, we have treated every variety of this disease nearly alike, and with a result which does not require, at our hands, any material change. We shall, however, defer our curative details, till we say a few words upon the disease as seen at Hamburg.

The present writer saw a great deal of venereal disease at Hamburg—the circumstances connected with this disease being entirely different at that city from any thing to be met with in this country, and almost every where else, we shall briefly state what we there learnt, and saw, respecting the disease under consideration.

It will doubtless sound strange to those who are not aware of the fact, that at Hamburg, the illegitimate commerce of the different sexes, is no less a matter of legal concern than the legitimate. The police has been led, it seems, in former years to believe that to take charge of public women would be attended with beneficial results—these become licensed prostitutes, and carry on their traffic of “raising linen,” by public consent, for which they pay a tax of considerable value. The regulations which were adopted have proved completely successful, in leading these people into very orderly conduct, and no doubt is left but that these regulations have tended to ameliorate the disease; and unquestionably to render it much less common.

We may not be able very accurately to state the regulations, we have adverted to, but, believe, we are in possession of all the important facts connected with the subject. When a female wishes to become a *trader* she reports herself at the *office*, where an account is taken of her name, and place of residence; and she is bound to pay weekly a certain sum (we believe two marks current, equal to two sevenths of a dollar;) and to report herself forthwith, at the Hospital, in case of contracting any disease of the genital organs. This it appears is done with great fidelity, although she pays a small weekly sum into the hospital fund while there. We saw something like a hundred in the female wards, most of whom were so slightly diseased that nothing but a mind strictly



honest, could induce them to report themselves at the hospital. Indeed, these people are proverbially honest, and without this trait of character, these regulations must, in great degree, prove nugatory. These inmates of the hospital are examined, twice a week, by the surgeon of the house, with such medical friends as he may think proper to invite. A couch is provided near a window, in one of the wards, covered with a morocco cushion, on which the patient is laid—she permits one of the dressers of the house to divaricate the labia pudendi, while the medical examiners, at the foot of the couch, examine sans ceremonie patient after patient till they may well grow weary of the process, were it only from the singular sameness to be seen in the disease, 10, 20, or more, may be seen presenting a red splotch, or excoriation around one, or a few, mucous follicles on one or both labia. It is found that, in a great majority, the centre of the inflammation is at the bottom of these follicles, and often a wart is to be seen at its bottom or rising out of it.

Our good friend doctor Fricke several times stated that, those warts were not only very common, but absolutely incurable, till they had run a certain course, and fell of themselves into a state of decline, or, at least, arrived at a stage of acme. Before this period, he stated it was in vain to cut them out, by knife or caustic—to apply astringents or any thing whatever. But that by waiting till that period, they would readily yield to treatment: that it generally required some weeks, sometimes three or four months, for the warts to arrive at this curable stage. They might then be cut off, or touched with mild caustic.

He also dwelt with emphasis upon the fact, that gonorrhea is so particularly connected with the mucous follicles, that they might be in a state of secreting inflammation, so slight and so deeply concealed, as to elude actual inspection of the parts, without careful attention to this circumstance; and under such circumstances, the female may be in a state to communicate the disease in coitu, by the male member pressing out the infecting fluid from its concealed bed. We have elsewhere stated that of the great number of cases we saw examined, not one presented symptoms of pure syphilis; and this was the opinion of professor Rust; nor are we able, at this time, to say whether there was any difference of opinion on this point, between doctor Fricke and professor Rust.

These cases are all treated without mercury, but for ourselves we must be allowed to say, with all deference to our friend Fricke, that he has a milder disease to deal with than generally prevails in this country, and we speak the substance of our own experience, and that of a very large portion of the profession in this country, when we say, that his great success is owing to this

fact. Candor also obliges us to say, (perhaps we are mistaken,) that we in this country cure these venereal sores in less time. We may however be mistaken on this point. To conclude this part of our present article, whatever may be thought of these city regulations, in a moral point of view, we are decidedly of the opinion, (and we formed our opinion partly from what we saw, and partly from assurances, that such appeared to be the fact, by some of our professional friends in Germany,) that the sum total of suffering, and of vice is lessened by these regulations.

Those unacquainted with the subject would be apt to imagine that these habits would extend the practice of illicit intercourse between the sexes, but we do not believe this to be the case. In all our intercourse in that bustling city, we never met by word or deed, in men or women whom we saw, any thing tending to this vice. To what extent it is carried on, we will not pretend to say, but surely the fact is somewhat remarkable, that we neither saw nor heard any thing calculated to lead us to know that such practices prevailed, except so far as we saw its consequences in the numerous patients who were at the hospital, every one of whom are registered, so as to be known when they return—among those whom we saw, it was said of some that they were in a second or third time.

The father of the present writer practised as a physician upwards of fifty years. Where, or when, he formed the opinion, we know not; but during some of the latter years of his practice, (as long as we knew any thing of his practice,) we know that he viewed gonorrhea and primary syphilis, as did Mr. J. Hunter, as one disease; and his practice was regulated accordingly. We most distinctly remember, that he never used injections in the cure of gonorrhea, and that he almost never departed from the following course of treatment:—Abstain from spirituous drinks, live on a milk and vegetable diet—lose blood once or twice from the arm—take a dose of salts, and the next day begin with powders containing, each, glauber salts, ℥j. calomel, gr. j. tart. ant. gr. ʒ; take one in cool water morning and evening; observing to take all clean from the bottom of the spoon; and in the event of there being gripings, or any soreness of the mouth, leave off till these symptoms wear off, and then begin again. Same time wash the penis frequently with a solution of Goulard's extract of lead in water, and rub the chancres, if any were present, with the ung. hydr. fort.; and in the event of chordee occurring, take 40 drops of laudanum, so often as necessary. Should there be a suspension of the running, apply emollient poultices. We know that after many years employment of the above plan of treatment, he had the fullest confidence in it; and that he had the reputa-

tion of being a successful practitioner in this disease. Such was his confidence in this plan of treatment, that, in most cases, he did not even examine his patients, but was content to take their description of the disease.

And such was our confidence in a practice which we had seen employed with the most satisfactory results, that we for a long course of years, implicitly followed the same course; and we can truly aver, that by this method, we have cured hundreds of patients, who reported themselves as having the ordinary symptoms of venereal disease, after supposed impure connection; and in a great majority of cases no ocular inspection was had: indeed to the present day, we treat most female cases without any inspection of the affected parts.

Many years since, we were led to believe that the opinion of Mr. Hunter of the unity of the disease was erroneous—that there were two poisons, the one giving rise to gonorrhea, and the other to syphilis or pox, both primary and secondary; we were therefore led to depart, in some measure, from the plan of treatment which we have already stated; and from the favorable reports of the practice of injection, we were led to try almost every thing of this kind—sometimes much to our satisfaction; oftener only to be disappointed by the frequent inefficacy of this plan.

In many instances we have dispensed with the saline powders above noticed, and used 10 gr. doses of nitrate of potash, with one of calomel; sometimes combined with small quantities of tart. ant.—sometimes without. Sometimes we combined the nitrate of potash with half a drachm of pulv. gum arabic: these powders were given morning and evening.

We have for many years endeavored to prevent the suppuration of buboes, by keeping on, constantly as practicable, raw wet with cold lead water. We have never enjoined any thing more as regards regimen, than a quite moderate diet, and the total abstinence from spirituous drinks; occasionally we bled once or twice. We have seen much good result from the use of bals. copaiva in protracted cases, both alone and combined with sp. nitri. We have thought favorably of the free use of gum water, of flaxseed tea, or the tea of mallows.

Under this course of treatment we have seen hundreds cured, and we never have had the misfortune of having patients, whom we treated, affected with those more deplorable secondary symptoms which we now and then see.

We have also in many cases, in warm weather, knowing the liability there is for every other disease, to excite biliary disease, given two grains of calomel once a day, at the same time giving a little salts, or jalap and calomel, or oil, once or twice a week, provided the pills did not keep the bowels soluble.

We have never seen any evil attend this practice; on the contrary, after the most patient examination of the various conflicting opinions, both at home and abroad, we feel no disposition to change our practice, since we most firmly believe that it is better suited to the disease, as generally seen in this country, than the plan adopted by the partizans for the mercurial, the dietetic, or the simple antiphlogistic plan of treatment.

But candor compels us to assert, that according to our observation, secondary symptoms succeed the alterative mercurial treatment, seldomer than any other; at all events, it is a most positive and unqualified truth, that to the best of our knowledge, secondary syphilis has never succeeded to our treatment of the primary. And if there is *one* gentleman in the profession who can testify to the contrary, we shall be pleased to stand corrected; and will most freely give place to such correction in this journal. We have therefore been led to the conclusion, that however certain it may be, that there is no specific for any disease, that mercury, given in a proper manner, with other antiphlogistic remedies, comes nearer deserving the name of being a specific for primary syphilis, than any other article is, for any one disease.

We have already mentioned the fact, that such was the confidence of ourselves, and the experienced father of the present writer, in a certain plan of treatment, in gonorrhea, that both were in the habit of prescribing without ocular examination: the same remark applies to syphilis. We know that such was often the practice of the former, and, for ourselves, we verily believe, we have treated more cases without inspection of the parts affected, than we did inspect. Where there is a free and open acknowledgment, on the part of the patient, that they are affected with this disease, we will almost invariably find it to be venereal—yet we have met with exceptions: but where patients are inclined, as is often the case, to deny having the diseases, the examination becomes necessary of course. We do solemnly declare, we have never met a single instance where we had any cause for regret, for having prescribed without ocular inspection.

Wishing to draw our observations rapidly to a close, we shall proceed to give an abstract of our practice in secondary syphilis.

We have never trusted any remedy but mercury: we have never, to the best of our knowledge, had any of the dreadful ulterior consequences which are sometimes seen, and which are ascribed by non-mercurialists to the use of mercury.

We have not, for the last twenty-five years at least, voluntarily salivated any patient in treating syphilis; on the contrary, we have always endeavored to avoid it, and have generally given

the remedy in such small doses as to create little liability to mercurial disease.

We have used calomel and opium more constantly than any other mercurial; next in frequency, we have used the murias hydrar., both in form of solution and in pills.

It has been a constant practice, in protracted cases, to alternate different mercurials: calomel, blue mass, sublimate, red oxide, have been used alternately, in intervals of two, three, or four weeks each. Sometimes combined with opium, sometimes with sarsap., in decoction or extract; sometimes with the decoction of the wood. Sometimes small doses of antimony—occasionally small doses of jalap and calomel, with, or more commonly without aloes.

In addition to the alternation of the mercurials, we have long believed that our practice was rendered much more efficient by alternating the mercurials with the nitric acid.

Our experience has led us to believe for the present, that no other method of using mercurials will afford similar beneficial results, with the plan of alternation, aided by the acid.

As local remedies, (we mean in cases of ulceration,) we have used sublimate in solution with water, or lime water; mercurial ointment, lunar caustic. In cases of nodes, we have used blisters, with mercurial ointment, iodine: in cases attended with heat and redness, cold lead water. And if one can be trusted who has no motive to deceive, not claiming any peculiarity in treatment, except a little in the detail, we would assure our readers, that after a practice of thirty-three years we have not seen any necessity for varying our course; never having, so far as we know, done any mischief by the employment of mercury, but there are many who could bear witness to our usual success.

But we candidly acknowledge, we would most willingly embrace any plan of treatment which we knew to be safe, and more expeditious than any now in use. We have tried almost every method which has been recommended, and although we have now and then succeeded speedily in curing the disease, yet in many others the disease becomes protracted. When they do succeed, we have found astringent injections most speedy: sometimes however, this method, as well as all others, fails to arrest the disease for many weeks; and even months. After attentively examining the plan by hungerkur, of the Germans; the common antiphlogistic, by the French and the English, and in our own country, the plan by injection, which has had its day in Great Britain and this country, we aver, that in the sum total, the simple treatment noticed in this paper is not inferior to either.

**ART. III. Case of Gonorrhœal Ophthalmy, taken from the note book of HORATIO G. JAMESON, M. D. kept at the Baltimore Jail, in the year 1819.**

Feb. 1, 1819. My attention was called to the case of a Spanish negro, when I made the following note:—He has a running from his penis, with swellings in his groin and axillæ. R. Submur. hydr. ʒss. Ipecac. gr. viij. ft. pil. no viij. One pill to be taken morning and evening. Rub the swellings with sweet oil, in which is dissolved sugar of lead.

3d. No better; does not take his medicine regularly. Apply emollient poultices to the groin, axillæ and penis. Continue the pills directed yesterday.

4th. Refuses to take his pills; has taken off the poultices.—Directed the reapplication of poultices; and gave one grain calomel morning and evening. Rubbed the swelling with mercurial ointment.

8th. Somewhat better, except a pain of the head. Applied an epispastic to the neck.

9th. The eyes have suddenly inflamed, and are extremely swollen. Cathartic of calomel and jalap—poultices to the eyes of bread and milk. Discharge abating rapidly.

10th. Eyes continue very painful and much swelled. Gave jalap and crem. tartar, each ʒss. Bathe the eyes frequently with warm milk and water; and poultice.

14th. Slightly better. Gave jalap and crem tart. each ʒss.—Continue the poultice.

18th. Improving in all respects. Gave jalap and crem tartar, each ʒss. Continue poultices.

20th. Eyes much better. Directed collyrium of lead water to be used frequently. Discontinue the poultice.

21st. No change since yesterday. Directed jalap and calomel each 10 grains. Continue collyrium.

23d. Eyes no better. Continue lead wash and inject the same gently under the lids.

24th. Considerably better. Gave jalap and crem tart., each ʒss. Dress the ulcers with basilicon.

26th. The eyes improve slowly. Continue lead wash and give jalap and crem. tartar, each half a drachm.

March 1st. Improving. Continue lead wash.

3d. Doing well. Gave jalap and crem. tart. each ʒss.

14th. Low diet has been continued, no medicine but the collyrium occasionally. He has a swelling under the jaws this morning. Usual dose of jalap and crem. tartar.

Here the diary of this case ends; but we well recollect that the patient remained some days afterwards in prison. He did not, however, take any medicine. The collyrium was continued together with a pretty low diet. The patient left the prison improving so handsomely as to leave no doubt of a complete restoration of his vision.

Here was a case of primary syphilis, in a bad habit, which had been neglected: and notwithstanding the violence of the symptoms, it will be perceived by the foregoing detail, that the treatment was quite simple. The patient did well. He was not treated without mercury, yet he was never under its constitutional influence, which; indeed, we do not deem necessary for primary syphilis. Both parties, mercurialists and non-mercurialists, will object to the treatment; and yet we see that we obtained a favorable result, from a simple course of practice, founded on principles which neither discards mercury as injurious, in all, or almost all, cases, nor presumes to consider this medicine as a *sine qua non* in the cure of primary syphilis.

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ART. IV. *On the comparative influence of vegetable and animal decomposition as a cause of fever*—BY USHER PARSONS, M. D. formerly professor of anatomy and surgery, Providence, Rhode Island—now a professor in Jefferson Medical College, Philadelphia.

There is, perhaps, no subject connected with medical science of paramount importance to that which constitutes the theme of the publication before us. In a large portion of the United States, in particular, every thing, tending to throw light upon the origin and nature of malaria, merits the approbation of the profession of our common country—In many countries of Europe, in parts of South America; the East and West Indies; &c. &c. mankind are, also, deeply concerned in the investigation of the nature and source of febrile poison. Looking, then, to the inducements which should actuate the profession of this country, we may say, they are bound, by the *amor patriæ*, to look well to it at home, while, as philanthropists, they cannot be indifferent to the acquisition of knowledge, which may be made efficient on the removal of the remote cause of certain fevers in other countries, and, thereby, lessen human suffering, and protract human life.

"It is supposed, (says our author,) that one sixth of our species die of fever." This is a question of very difficult solution—it is not easy to ascertain with sufficient precision the number of deaths from fever merely; but, there is a vastly increased difficulty in deciding in many instances, how far the death of individuals may be owing to what may be called pure fever; and a still greater in deciding, in very many cases, how far death was occasioned by the *indirect influence of fever*. For ourselves, although we are far from admitting the opinion of doctor Maccullough that, almost all diseases may be traced to preceding fever, as their cause, and that much disease is occasioned by the same cause, as fevers, without exhibiting any of the more remarkable phenomena of fever\* that scrofula for instance may

\* Doctor Parsons having noticed the list of diseases which are supposed, by doctor Maccullough, to arise from malaria, we shall quote this passage from the paper now before us—"Doctor Maccullough enumerates the following—intermittent, remittent, both simple and malignant; and nervous fever; dysentery and cholera; dropsy, edema, obstructions of the liver and spleen; neuralgia; and particularly that form of *tic doloieux*, to which he would add, (doctor Cooper thinks,) the dengue fever of Charleston and Havana. He is in some doubt as to scrofula, goitre, hebetude of intellect and general lassitude, rickets, hernia, rheumatism, sciatica, toothach, asthma, peripneumonia, dyspepsia, palsy, phthisis, and chlorosis." "But, (says doctor Parsons) most of these are certainly produced by other causes, and some of them are not entitled to a place in the list." We see no sufficient reason for excluding any one of the above diseases, as the product of fever, either by the direct or indirect influence of the malaria which gives rise to genuine fever—We by no means wish, however, to convey the idea that malaria is the only cause of all of the above diseases. We have been led from a very long course of observation and reflection upon the nature and causes of those diseases, to believe, that the ordinary malaria, of marshy situations, in smaller collections of the generating materials, may, by debilitating the system, lead to attacks, from other existing causes, of toothach, rheumatism, scrofula, &c.

We have been led to conclude, that doctor Parsons is entitled to our respects for the ability and success with which he has advocated the opinion of the deleterious influence of animal effluvia, under peculiar circumstances. We candidly confess, that, as regards the question of febrile diseases, in their epidemic form, we have pretty generally gone along with the more generally received opinion, that while we had so much to fear, in some seasons, from marsh miasm, that under no circumstances had we much to fear from animal putrefaction; but we can, without the violation of truth, aver, that we have always believed, if animal effluvia was not capable of producing fever, that it, at least, acted as a sort of ferment to the vegetable mass, from which we had every thing to fear. And we feel pleasure in assuring the author before us, and our readers, that we have always acted on this opinion in counselling the board of health, in regard to nuisances—alleging always, that if we were not certain of any thing else, we had no doubt but animal matter, in a state of putrefaction, might act as an exciting cause of malignant fever, in seasons when the ordinary malaria was in force to produce an epidemic. It has, therefore, always been made a rule of



probably be the result of exposure to a miasmatic atmosphere. While we receive this opinion with a good deal of caution, to the extent contended for by doctor Maccullough, we are decidedly of the opinion, that a very great amount of mortality is owing to the deleterious influence of miasmatic poisons which, owing to peculiarity in the susceptibility of individuals, or to a reduced force in the poison producing the disease, never assume the form of idiopathic, or of specific symptomatic fever. In a word, then, we believe, we should be hazarding nothing in asserting, that, taking the question on the broad basis upon which we have placed it, we might contend, that, the proportion of 49 fiftieths would be nearer the truth than one sixth, as the proportion of mankind who die of fever at least from the same remote cause under different modifications.

The author tells us that, "in discussing those questions, (those set forth in the title page) our attention shall be directed first, to the effect of vegetable decomposition; secondly, to that of animal decomposition; thirdly, to the comparative influence of both as a cause of fever."

The author, having marked out this course, enters into the subject of miasmatic poisons in general—in which he descants upon the established knowledge, appertaining to the subject, such as the requisite condition of vegetable matter susceptible of a putrefactive process, and which is aided in that process by heat and moisture. We have also some account of the more or less liability of different places in the same latitude to fever and of the occasional devastation of armies, cities and sections of countries, by miasmatic poison. In all this, however, we discover nothing particularly novel, still we are willing to award to this writer no small share of merit, for a judicious exposition of the general stock of knowledge on this subject. The first division in the arrangement, proposed by professor Parsons, having been generally admitted, we shall pass it over, and reprint his observations, in the second and third division.

## II. *The Effect of Animal Decomposition upon the Human Body.*

—If medical men have generally agreed in opinion respecting action to remove every portion of animal matter from our city, which we found in a putrid state; and not merely because it was offensive to the sense of smelling, but, also, because we never were wholly satisfied of its innocence.

We take pleasure in bearing evidence to the very satisfactory criticism, and correction of the misstatements or mistakes of Bancroft—this part of professor Parsons' paper is entitled to much commendation.

In concluding, we are reminded of our having, many years since, publicly expressed as our belief, that dysentery was produced, some years since, in a village in Pennsylvania, by carelessly fouling the street with human feces, from a large and old privy.

the febrific nature of exhalations from decomposing vegetables, it is far otherwise in respect to those emanating from animal substances. There are probably at this time a majority of the best informed part of the profession who regard animal decomposition as innoxious in its effects, or at any rate as not productive of fever of any kind; and this opinion is now prevailing with the profession both in Europe and America. This is owing in no small degree to the distinguished rank and talents of several individuals who imbibed the opinion, and maintained it publicly, and with great zeal and ability, in works on fever, and in many of the periodicals of the present day. At the head of these may be named Dr. BANCROFT, who, though not the first in declaring that animal putrefaction has no febrific qualities, has taken more pains to establish such a belief than any other individual. The other gentlemen I shall mention, are two distinguished professors, viz. Drs. CHAPMAN and WARREN of Philadelphia and Boston, who, to the many facts adduced by Bancroft as proofs of this doctrine, have added several corresponding ones from their own observation. The public teachers of medicine in our medical schools have likewise, in most instances, supported the same opinions. Such distinguished leaders in support of any doctrine, will naturally draw numerous advocates into their ranks, and hence we find the opinions of these gentlemen pervading the profession generally.

In the early ages of medicine, the opinions respecting the febrific nature of decomposing substances, was the reverse of what we have stated it to be at present. Identifying the morbid character of pernicious effects upon the constitution as proportioned to their offensiveness, to the olfactories. "The Egyptians, Jews, Greeks, and Romans, were careful to dispose of their dead by burning, or by burying them far without the walls of their cities;" and their armies were cautioned against encamping long near a field of battle, lest the putrefying bodies of the slain should generate pestilential diseases. The same belief continues to prevail even in modern Europe. In France and Italy edicts were issued from time to time, by both secular and ecclesiastical authorities, from the eighth to the eighteenth century, against interments in churches and cities—and it is probable, that but for the writings of Dr. Bancroft and others, the same belief would have continued to this time. As the subject is interesting to health and life, it is time that the opinions of Dr. Bancroft and his disciples, as well as the facts on which they are grounded, should be carefully examined, and collated with other facts that will tend either to confirm or refute them. The question proposed for this essay presents an opportunity for doing this, and with deference due to the elevated rank and

distinguished talents of the gentlemen we have alluded to, a feeble attempt is here made to canvass the evidence on both sides of the question.

The reasons urged in support of the innoxious, or non-febrific nature of animal decomposition, are *first*, That the number of instances wherein fever has been actually ascribed to such a cause, by those who believe in its power to produce it, is very small, and the cases are not well attested. *Second*, That when the cause has existed in greatest abundance, and was therefore most likely to produce fever, this has not occurred.

Let us now inquire what are the kinds of fever that have been attributed to this cause? Taking the nosological arrangement of Dr. Goon, we may arrange idiopathic fevers under the following heads;—1st. Intermittent. 2d. Bilious remittent, simple and malignant; the last of which includes yellow fever. 3d. Hectic common inflammatory fever. 4th. Typhus gravior. 5th. Typhus mitior. 6th. Synochus. From this list we are justified by the nature of their known causes, by the local circumstances of places where they occur, as well as by their general character, in dropping all except yellow fever and typhus gravior. Most, if not all practitioners, will concur in the opinion, that the other kinds have rarely, if ever been attributed to animal decomposition. Alibert remarks, that intense application to dissections has in some instances caused malignant intermittents in Paris. But I have witnessed no such effect there, nor elsewhere, whilst many physicians of the first respectability, who have passed years in such employments, deny that such fever has, in any instance within their knowledge, been ascribed to such a cause.

The two fevers just mentioned have been variously named—typhus gravior being termed the hospital, jail, or ship fever, and by some malignant typhus or putrid fever; the other has been called typhus icterodes—malignant bilious remittent, but more commonly yellow fever. Those who believe that vegetable decomposition alone produces fever, (leaving contagionists out of the question,) ascribe both kinds to this cause alone, and those who believe in the febrific qualities of animal as well as vegetable decomposition, attribute yellow and putrid fevers to each of these agents, or to both combined, under the name of vegeto-animal putrefaction.

To the above causes of these two fevers may be added that of contagion, which is strenuously maintained by some as the most frequent cause, and is as warmly opposed by others. But as the question of contagion is foreign to our present investigation, and would require a volume to support or refute it, we here take leave of it, and return to the question. *If yellow and pu-*

*trid fever can be produced by animal decomposition, why are there not more and better attested cases to prove it?*

In answering this question, we are to keep in mind the circumstances, which we have already considered, which tend to give efficacy to vegetable decomposition as a cause of these fevers—they are intense heat, moisture, and abundance of decomposing materials. Now, a careful examination of the two cases will show that these three circumstances occur often, in respect to vegetable matter, and but very rarely in respect to animal matter.

In the first place, in respect to heat and moisture, animal matter is rarely found like vegetables in suitable relation to them. It is not abundant like vegetables upon marshes, where the sun can act upon a broadly extended surface of it, and that too while in a constantly moist state. When exposed to the degree of heat that will elicit the cause of such fevers from vegetables, animal matter soon parts with its own moisture by evaporation, and becomes perfectly dried. The jerked beef prepared for commerce under the tropical sun of South America is a proof of this fact. Every anatomist knows that his preparations can be preserved in midsummer if hung in a draught of air. The human bodies preserved for centuries in the cemetery near Palermo, were secured from putrefaction by heat, as are the bodies of those who fall in the deserts of Africa.

Where, however, a carcass is not placed under such favorable circumstances for desiccation, we know that it can exist in a putrid state but for a comparatively short space of time. The law imposed upon animals, "eat or be eaten," is imperative, and we know, without referring to scripture, that "where the carcass is, there will the eagles be gathered together." Carnivorous animals, large or small, are always at hand to consume every species of carrion.

One of the signs of approaching malignant fevers, is increasing swarms of flies and other insects, which, whether they have just sprung from putrid matter that has escaped human observation, which is to generate the disease, or are provided for the purpose of removing such matter, we know that they are present to consume putrid matter.

Add to this, that in all populous places where such fevers spread, the police is always peculiarly observing of dead animal substances. Guided chiefly by the impressions made upon their senses, the peculiar offensiveness of effluvia from putrid animal substances, as well as the loathsome sight of them, leads to greater precautionary measures. A dead cat in the street is removed and buried, whilst putrid vegetable matter remains collected

around the walls of buildings, and putrid coffee is thrown into the docks. A dead rat concealed in a dwelling, will extremely annoy the inmates till every pains is taken for its removal, or will drive them to some other part of the dwelling that is less scented, whilst putrid potatoes, turnips, and cabbages in the cellar, of an hundred times the bulk, are often entirely disregarded. The crew of a ship in sickly ports in hot seasons, will, if left to their own inclination, sleep on deck, in an atmosphere loaded with morbid vegetable exhalation, whilst a single putrid rat, or even mouse, concealed in the cabin or fore-castle, would cause a thorough purification of the apartment. The shores of rivers and streamlets, bordered by marshes, are often visited in a summer's evening with delight and temporary refreshment, whilst the stench of a slaughter-house, in the neighborhood of a city, though containing scarcely a visible portion of decomposing animal matter, is turned from with disgust. With such precautionary measures in the one case, and neglect of them in the other, because the senses are differently affected, can it any longer excite wonder that the fevers we have mentioned, supposing them producible by it, should so rarely proceed from animal decomposition, and yet so frequently from vegetable decomposition? Seeing too that the latter is so abundant about populous places, and requires only a long continued heat, from 60 to 100°, to act upon it, whilst putrid animal matter is at such times, for the reasons we have mentioned, so rarely to be found.

Much has been said of the influence of city interments upon the public health, and those who hold to the innoxious nature of animal putrefaction, might refer me to burying grounds for sufficient quantities of decomposing bodies. It is not worth the time to examine the fine spun theories published by doctor PASCALIS, to show that "the fetid gases in a grave can permeate the superincumbent earth, and exhibit phosphorescent light hovering over the spot, and impregnating the atmosphere with morbid principles." Sufficient for the present discussion is the fact, that, when the yellow fever broke out in New York, from Coentis' slip,\* and spread through the neighborhood, its progress was immediately arrested by covering the putrid animal and vegetable materials from which it issued, with fresh earth. But because dead bodies when covered with earth, as in this case, and also as in graves, do not produce fever, are we to infer that such bodies would not produce fever if exposed to the open air?

But secondly. *When animal decomposition has existed in greatest abundance, it has failed to produce fever.*

Here we are met with the often recited accounts of Bancroft, and others, respecting the mass of putrid animal matter exposed

\*Medical Recorder, Vol. VII. p. 468.

to the air in the exhumation at Paris and Dunkirk, and in dissecting rooms, and the putrid emanations from the burial ground at Seville. Let us examine them—first stating them in doctor Bancroft's own words.

"Many writers of celebrity, and among them the great Lord Bacon," says doctor Bancroft, "have thought that no effluvia were so infectious and pernicious to mankind, as those which issue from putrefying *human* bodies; and it is still believed, that, in their milder state, they may cause putrid fevers, and in their more concentrated state, a true pestilence. There are facts, however, on a large scale, which completely decide this question;—two of these deserve particular notice. The first relates to the exhumation made in the church-yard of St. Elvi, at Dunkirk, in the year 1783: and the other to those made three years afterwards, in the church-yard of the Saint Innocens, at Paris. As the undertakings and results were similar in both instances, I shall, to avoid repetition, here describe only the latter, which I have preferred, because the corpses here taken up were much more numerous than at Dunkirk, and probably constituted the greatest mass of putrefying animal matter, of which we have any accurate information. The church-yard of the Saint Innocens, at Paris, situated in one of the most populous quarters of the city, had been made the depository of so many bodies, that although its area enclosed more than one thousand seven hundred square toises, or near two acres, yet the soil had been raised by them eight or ten feet higher than the level of the adjoining streets; and upon the most moderate calculation, considerably more than six hundred thousand bodies had been buried in it, during the last six centuries, previous to which date, it was already a very ancient burial ground. Numerous complaints having been made concerning the offensive smells, which arose from this spot, and sometimes penetrated into the adjoining houses; and the public mind being greatly alarmed, it was at last determined to forbid all future burials there; and to reduce so much of the superstratum as would reduce the surface to the level of the streets. This work was undertaken in 1786, under the superintendence of M. Thourret, a physician of eminence in Paris, and in two years he accomplished the removal of that superstratum, almost the whole of which was impregnated, or *infected*, as M. Thourret styles it, with the remains of carcasses, and of quantities of filth and ordure, thrown upon it from the adjoining houses."

"The exhumations," says this gentleman, (in the narrative of them, which he published in the *Journal de Physique* for 1791, page 253,) 'were principally executed during the winter, but a

considerable part of them was also carried on during the *greatest heats* of summer.

"They were begun with every possible care, and with every known precaution; but they were afterwards continued, almost for the *whole* of the operations, without employing, it may be said, *any precaution whatever*; yet no danger manifested itself in the whole course of our labours—no accident occurred to disturb the public tranquillity."

The facts here recited from Bancroft to prove the innoxious nature of putrid animal matter, relating to the exhumations at Paris and Dunkirk, make a strong impression on the mind of one who merely glances at them. But a close examination of particulars will show, that if doctor Bancroft has told the truth, he has not told the whole truth, but like a skilful advocate, rather than an impartial judge, he has suppressed important parts of the evidence, which if related, would prevent him from making out his case, and take away the support he intended to derive from them, to his favorite hypothesis.

In referring to these, and all other cases of animal decomposition, we are to bear in mind the circumstances we have already related of vegetable matter, as necessary to constitute it a cause of malignant, yellow, or putrid fever. And in the first place, in respect to heat. This it has been shown, must range above 80° of Fahrenheit for several days, in order to generate these fevers from vegetable decomposition. Now what was the temperature at the time the exhumations took place. "They were commenced at Paris in December, 1785, and continued till May, 1786—renewed again in the following December, and continued till February, and from the month of August 1787, to the month of October."\* There were then only one or two months of the time in which malignant putrid, or yellow fevers, from even vegetable putrefaction, or any other cause, are supposed to occur. "They took place in the night season only."† Johnson says "that miasm from marshes is expanded by heat, and that the evening air cools and condenses it. That it is the descending vapor of evening that precipitates with itself the miasm that had been elevated by heat, and hence twilight of evening is the time of greatest danger," and that it is comparatively safe afterwards, is stated, as before observed, by the Italians. Now in the present case there was no emanation in the day time, because the bodies were not uncovered till evening for removal, and then the cool air had no tendency to evolve and raise it from them.

2d. As to quantity of matter, "six hundred thousand bodies,"

\* Dictionnaire des Sciences Medicales, art. Exumation, Vol. XIV. p. 196.

† Ibid.

says Bancroft, giving an impression that an immense number were exposed at one time, when in truth they were removed as fast as uncovered.

3d. To give credibility to the account of such numbers being buried, he is obliged to admit that they were six centuries work, yet not to lose by this concession of great length of time they had lain, he takes care to add in a note, that ninety thousand, (and this I admit is sufficient for his purpose as to numbers,) were buried within thirty years. But he is cautiously silent as to the time of the last interments, and also as to the time that animal matter is supposed to retain its febrific qualities. Now what is the fact in respect to these particulars. In respect to the duration of the morbid principle, in decomposing animal bodies, MARET,\* an eminent French writer, states three years as the time for complete decomposition, when the grave is four feet deep, and four years when it is six or seven.†

What says Fourcroy? This gentleman, who was employed for chemical purposes in the exhumation of St. Innocens, states, "three years as a term during which the septic poison must take place."‡ Speaking of this very exhumation, he remarks, (p. 142,) "we had a strong desire to satisfy ourselves, by experiment, what was the nature of the destructive air, or 'septic explosion,' emitted from corrupting bodies, but we had no opportunity, in consequence of there having been no burials there for three preceding years; the last deposit there being in 1782." Now the month of August 1787, was the time when "the bodies were removed in the hottest weather," as Bancroft relates it, which was five years after the last interment, and two years after morbid miasm, according to Maret and Fourcroy, had ceased to exist. Nor is it at all likely that the last interments, five

\* Dictionnaire des Sciences Medicales, Vol. XIV. p. 192.

† M. Burdach, in his Physiology, (Leipzig, 1810,) states that the decomposition of dead bodies takes place at three periods. *The first is that of fermentation*, which lasts many months; then there is a tumefaction of the body, from the development of gaseous substances which escape with an extreme fetor. In the second, which continues from two to three years, the soft parts are converted into a brown or green pulp; the mass lessens, because it is in a great part volatilized and converted into carbonated hydrogen, sulphur, phosphorus, carbonic acid, ammonia, and vapor. During the third epoch, the gaseous products completely escape, and there remains a dark-colored earthy matter.

I might here add the generally received opinion of doctor Fordyce, that putrid animal matter, put in contact with recently dead animal matter, hastens the process of decomposition, and there was enough of putrid matter at all times in this yard to do this, whenever a recent body was interred.

‡ Pascalis, p. 150.



years previous to said August, were specially reserved for this hot month, but most probably much older interments. There were, therefore, no bodies removed that were in a stage of decomposition favorable for producing febrile diseases, in *any* weather, however hot, even had the whole number been exposed to the air of mid-day at once.

But "the bodies," says the report, "were in every stage of decomposition." This expression is, however, to be understood as qualified by the time, that is, they were in every stage of decomposition after more than three years interment, in which time the septic emanation is completed. And should circumstances of soil or manner of interment prevent putrid fermentation from taking place within that time, it is probable that the deleterious emanations are decomposed, and recombined in new and harmless forms.

Another fact, particularly worthy of notice, which Bancroft unfairly or ignorantly omits to mention, is—

"The great number of torches and fires that lighted all parts of the cemetery and shed around a melancholy glare," and "the thick clouds of smoke that surrounded and covered the place of labor."

Fires and smoke have been found of great utility, especially in military service, as was proved on a large scale by Buonaparte, before Mantua; and in Africa, the experiment in a small way has proved successful.

"Emigrants proceeding to Alabama and other southern regions, from the low countries of Carolina, find no injury from sleeping in the open air, as their custom at night is to build a large fire of logs, and lay themselves beside it on some part of their baggage. The effect of fires in destroying malaria, is plain, if the fact of its existence depends upon the presence of moisture being evaporated by the heat, the poison is either dispersed with the vapour, or if separated from it, falls innoxious, and probably inert. It is on the same principle that smoking cigars on the decks of ships is salutary. The heat and smoke keep a dry atmosphere about the uncovered face, and the air respired, being thus deprived of miasmata, is safe."

What then becomes of this formidable array of six hundred thousand bodies removed from the cemetery of St. Innocens, which occupies the front ground of the picture drawn up by Bancroft, and is copied verbatim in two of our public journals, in Boston and Philadelphia, by two of the first medical men in our country, and minutely repeated before classes, by almost every professor of theory and practice in our medical schools? 1st.

\* Dict. des Sciences Medicales, Vol. XIV. p. 187.

They were removed as fast as they were uncovered. 2d. The exhumation took place at a season of the year when malignant fevers caused by malaria are known and believed by Bancroft not to exist, with the exception of two months, August and September, and in the night season too, when the degree of heat of *those* months is not sufficient to produce malaria. 3d. They were removed full two years after the time that an eminent chemist, who was present, states that they had ceased to be productive of morbid gases; and lastly, with such precautions and preservatives by fire and smoke, as would probably have disarmed the exhalations of their poison had there been any.

Another case of disinterment, quite as formidable, is given by Bancroft, which took place at Dunkirk in 1783, and which he declines relating, "because," he says, "the undertakings and results were similar in both instances, and he wished to avoid repetition." When did this take place? It was commenced on the 26th of February, and finished on the 16th of April,\* a season in which no fevers from malaria, of either vegetable or animal origin are believed even by Bancroft to exist.

Now I appeal to the reader, I appeal to the candid part of the profession at large, whatever may be their opinion of the noxious or innoxious nature of animal decomposition, to decide if it was fair and candid in Dr. Bancroft, to shuffle the two reports of Paris and Dunkirk exhumations together, and turn up the face of one, and declare to the world that it is an exact representative of the other, when the most material point, the "*hottest weather*," is stated in the one case to have existed, and is italicised by him as a most material fact, and could not have existed in the other, the weather being cold, partly in winter.

Dr. Bancroft next goes on to say—

"If this result from taking up nearly twenty thousand bodies in different stages of putrefaction be insufficient alone for my purpose, there is another equally conclusive in its nature and extent.

"It is well known that M. Berthe, Professor in the school of Medicine at Montpellier, and two of his colleagues in that University, were sent by the government of France, into Spain, to examine and report upon the nature of yellow fever, which had proved so fatal in several towns of Andalusia, in 1800. M. Berthe has published the report of the commission, of which he was a member, and in it has mentioned, that, being at Seville only a few months after the epidemic had ceased, he frequently visited the burying places just without the city, in which the victims of the fever had been interred; that in these excursions he

\* Dict. des Sciences Medicales, article Exhumation, Vol. XIV. p. 196.

was accompanied by the French consul at that city, and had occasion to converse much with the guards stationed at these places, and with the gravediggers still employed in them, and he states, that besides these, many thousands of the inhabitants of Seville also came thither, some from curiosity, and others in processions, to testify their sorrow and respect for their departed friends. In one of these grounds, south-westward of the city, ten thousand bodies had been buried; in two others, seven or eight thousand; and in that of Triana about four thousand.

" 'The heats of the spring,' says M. Berthe, (which I need not observe are considerable at Seville,) 'were at this time beginning to be felt, and the ground of these burial places, being clayey was already cracked into wide and deep crevices, through which a fetid odour was exhaled, the result of the decomposition which was going on among these heaps of bodies.'

"Filled with alarm at the calamities which might be produced by such masses of putrefaction, M. Berthe and his colleagues represented the supposed dangers to the Spanish government, and then went to Cadiz, where they found the churches more or less filled with putrid emanations from the same cause; but as they did not discover that these supposed fomites of infection were productive of any mischief, their fears concerning them seem at length to have subsided completely; for, in their reply to the president and members of the board of health, who had requested a statement of their opinions, they expressly declare their belief, that, 'if the yellow fever could be produced by the effluvia arising from putrefying bodies, it was evident that such a misfortune must already have taken place, through the imperfect manner in which the tombs and vaults, pointed out by them, had been closed, a defect which they had observed even in the churches most frequented.' Thus it appears that the putrid emanations from the bodies of many thousand persons, who had recently died of the yellow fever, did not, and therefore could not produce that disorder,

"To the preceding facts I may add another, which is related by a man whose veracity is as little to be questioned as his exalted philanthropy—I mean John Howard, in his work on Lazarettos, page 25.

" 'The governor at the French hospital at Smyrna, told me, (says Mr. Howard,) that in the last dreadful plague there, his house was rendered almost intolerable by an offensive scent, especially if he opened any of those windows which looked toward the great burying ground, where numbers were left every day unburied, but that it had no effect on the health of himself or his family. An opulent merchant in this city, adds he, like-

wise told me that he and his family had felt the same inconvenience without any bad consequences.'

"If the exhalations from piles of bodies destroyed by the plague itself, and corrupting in the open air, were thus incapable of generating the contagion either of fever or of plague, even during the prevalence of a pestilential constitution of the atmosphere, (if any state of the atmosphere ever deserved that title,) it may, I think, be safely affirmed that there are no circumstances under which putrid animal matter can be supposed ever to produce febrile contagion.

"I have now before me a great number of similar facts, well authenticated, but those which I have just stated, will probably suffice to convince most of my readers, that if putrefying animal matters are not completely harmless, they are at least innocent of the charge of producing *contagious fevers*."

In respect to the mission of M. Berthe from France to Seville, Dr. Bancroft after giving the foregoing report, goes on to notice it thus. "The heats of the spring, says M. Berthe, (*which I need not observe are considerable at Seville,*) were at this time beginning to be felt, and the ground being clayey, was cracked into wide and deep crevices, through which a fetid odour was exhaled, the result of the decomposition which was going on among these heaps of bodies."

"*Thus it appears,*" says Mr. Bancroft, "*that the putrid emanations from the bodies of many thousand persons who had recently died of yellow fever, did not, and therefore could not produce that disorder.*" The italicised lines are supplied by Dr. Bancroft himself, and serve to show his readiness to bend and qualify evidence to suit his purpose. "*The greatest heats of spring,* says Berthe," and who, let me ask, will pretend that the thermometer ranges at Seville so high as 80° in the spring for a succession of days, or that the yellow fever ever prevails there till the summer is far advanced. Yet, apprehending that the word spring would imply a moderate temperature, he gratuitously supplied a qualification to make the heat greater in the mind of the reader than it actually was, and such as is requisite to produce malignant fevers from malaria, which, as we have before stated, ranges during the prevalence of yellow fever at 80° and upwards.

Yes! "*greatest heats of summer,*" which in the Paris exhumation doctor B. thought of so much importance in his report that it made him italicise the words, but which in the Dunkirk case, that took place in cold weather, he thought of no consequence to distinguish it from that of Paris, yet here he would fain make the impression that "*greatest heats of summer,*" (or that degree which he elsewhere deems essential for the production of yellow fever,) occurred in the spring! And because these bodies "*did not pro-*

*duce yellow fever,"* at a season of the year when such fever never exists from any cause, the gentleman concludes forthwith, and positively declares that they "*could not produce that disorder*" at any season.

As to the report of Mr. Howard respecting the governor at the French Hospital at Smyrna, and of the fetor in his house, we may observe, that the febrific principle was probably in a great measure excluded by keeping the windows closed. Dwellings in the neighbourhood of slaughter-houses in Brooklyn, are affected in the same manner as is the highway. But the smell is not, I repeat it, the febrific principle, nor is it to be understood as always proportioned to it. This story about Smyrna comes third-handed, and without any statement of the distance of the burying yard from the house, or of the temperature of the air.

In the appendix of Bancroft is a long account of the innoxious effects of dissections. But are these ever prosecuted in the heats of summer, when yellow fever prevails?

The account of an adipocire establishment near Bristol in England, is unaccompanied by any statement of the season of the year, or of the temperature of the atmosphere, or the number of persons employed or exposed to the effluvia, or of the amount of putrid animal matter existing at the same time. The same imperfection attends the accounts of the dead bodies washed on shore near Aboukir, the glue, soap, candle, catgut, and leather factories. I contend for no more in respect to heat, moisture, and abundance of materials, to give febrific activity to animal decomposition, than is already conceded by Bancroft and others to be indispensable for the production of yellow fever from vegetable decomposition. When, therefore, the above instances cited by Bancroft, to which many others have been added by the Boston, Philadelphia, and Baltimore writers, when I say, these instances are accompanied with evidence that heat and moisture concurred at the same time, and in the same degree, as is admitted to be necessary for the production of yellow fever from vegetable matter, then; and not till then, is any of this negative kind of evidence admissible against the febrific power of animal decomposition. As well might one contend against the generally received doctrine that marsh miasm possesses febrific qualities, and, pointing to the swamps and marshes, both fresh and salt, of New England, demand why these do not annually produce fever.

"In regard," says Bancroft, "to the morbid effects supposed to result from the putrefaction of fish, they appear, so far at least as regards fever, to have had no existence." This assertion I shall have occasion to notice hereafter, and refute by positive testimony to the contrary. That the boiling of blubber should be harm-

less notwithstanding its offensive effluvia, is what might certainly be expected, considering the great power of fire as before stated on several authorities to destroy malaria.

The use of fish for *manure*, as herrings, alewives, &c. is adverted to by Bancroft, and also by the gentlemen before alluded to in Boston and Philadelphia. It should be borne in mind, however, that these fish are most of them buried, and that such of them as are above ground, are strewed over it, and from their small size are soon dried; they are not thrown in heaps in the manner that putrid coffee, potatoes, and cabbages, were, when *they* produced yellow fever, as appears from the several reports contained in the Medical Repository, and other publications. From those it seems that a sort of intestinal heat and fermentation in the centre of the mass is necessary to produce yellow fever. Now, the time required for this heat to generate in animal or vegetable substances from the evolution of new gases, is many days in the human body buried many months, and almost as many weeks above ground, whilst two or three days are sufficient to desiccate small fish strewed upon the ground, and prevent the fermentative process from taking place, although they may evolve disagreeable effluvia as stated to be the case by the Boston and Philadelphia writers, of those strewed upon the grounds near Newport, and on the banks of the Delaware.

Thus, I have examined nearly all the facts related by Bancroft, and the other gentlemen alluded to, and have shown that there were circumstances connected with each that weaken its force, and in almost every instance destroy it altogether, as a proof against the febrific power of animal decomposition.

One other substance remains to be noticed, to which these gentlemen attach much importance, as proving that animal decomposition is not febrific. It is human ordure. "Putrid human excrement," say they, "seems equally incapable of producing fever," and then they repeat the statements of night-men. But this substance, let it be borne in mind, if it proves any thing in the case, proves too much. Excrements are a part of the result of a process performed upon both vegetable and animal materials. If the fact were established that it did produce fever, and I were to offer it against the opinions of these gentlemen, they would turn upon me, and say that it is the vegetable part of the materials forming the excrement that causes the fever, for they all maintain, that putrid vegetables are febrific. But admitting, for the sake of the argument, that the excrement is the result of animal food alone, it is no longer the same animal matter as regards its susceptibility of febrific putrefaction. It has undergone the digestive process, has been imbued with, and acted upon, by the gastric juice, which we know has a strong in-

fluence upon the putrefactive process; it even corrects this, and in some animals subdues it to an astonishing degree, the most putrid meats being rendered perfectly sweet by it in their stomachs. Nor is it consistent with our views of the wisely ordered economy of nature, to suppose that man should, by an indispensable process of his system, be constantly producing a substance that could act as the bane of life.

The "atrocious smell" they advert to, as emanating from such substances, is not, let it again be repeated, the cause of fever; besides, if it were the cause, this is as offensive in the form of flatus within the bowels, as when exhaled from the substance in a privy, and is in more immediate contact with the absorbents. In a word, human excrements possess the properties common to neither animal nor vegetable matter; it is a substance *sui generis*,\* and its emanations cannot be fairly referred to, to support the doctrine that either animal or vegetable putrefaction possesses febrific properties.

The Boston and Philadelphia writers attach great importance to the exhumation of St. Innocens, as settling the question that animal decomposition never causes fever. In this they choose to "*go for the whole*," whilst Bancroft, from whom they have copied this account of St. Innocens, and almost every other fact they advance, warily shields himself by a saving clause in his conclusion, which they have not seen fit to avail themselves of. The clause is this. "If putrefying animal matters are not completely harmless, they are at least innocent of the charge of producing *contagious fevers*." Contagion was his subject of discussion, and he does not positively deny that fevers which are non-contagious, (and such he regards yellow fever,) can be produced by animal decomposition.

The Boston writer, with a spirit of candour that marks his whole paper, concludes it by saying, "Should a different opinion exist on any important point, I hope these remarks will have the effect to call it forth." I therefore respectfully ask leave to dissent from his conclusion in one particular, even were the facts sound and incontrovertible from which he draws it. The case, (says he,) of the cemetery St. Innocens has been considered to

\* In proof of this it may be observed, that where the whole food is exclusively vegetable, as is that of the ox kind, the emanations from the excrements are perfectly harmless. I challenge any one to adduce a well authenticated case of yellow fever caused exclusively by barn or stable manure, and yet nothing is more common than heaps of it round every farm yard throughout the middle and northern states, and under circumstances too of heat, moisture, and abundance of the mass, the most favorable for engendering malaria. Why then expect it from human excrements?

be conclusive of the non-febrific nature of animal decomposition, if no positive and satisfactory facts can be adduced on the opposite side. Now, I maintain that this cemetery case, and all the other facts cited, amount to no more than negative evidence, and that unless the gentleman can show that they combine every circumstance that could favor the operation of animal putridity in causing fever, which would be next to impossible, the evidence amounts only to probability, and is not "*conclusive*," even if no facts were adduced on the opposite side to prove that it does cause fever.\*

One well established fact, however, proving beyond doubt that animal decomposition possesses febrific properties, is sufficient to controvert all the negative evidence to the contrary, which the gentleman have adduced. It is now my purpose to offer many such facts.

1. The Rev. HENRY CHANNING in a letter to Dr. MITCHELL, see Medical Repository, Vol. II. p. 402, states it as his own opinion, and that of Dr. COIT, Dr. LEE, Mr. WOODMAN, and Mr. HOLT, that the yellow fever which prevailed in New London, in 1798, was caused by putrid fish. Of the whole number of cases of fever, (246,) "two hundred and thirty-one were clearly traced to the spot where the sickness commenced, that is, the persons were conversant, or had been in that part of the city a few days before they were seized," and "scarcely a single person escaped the disorder who resided in that part of the city."

"It appears," says Mr. C. "that there was a large quantity of dried fish, in a bad state, in four or five stores, within twenty or thirty rods of each other, and all in the limits referred to. These fish were taken in the Straits of Bellisle, which being a high northern latitude, they were cured with a much less quantity of salt than usual. They were brought to this port in the autumn of 1797. The heat of the summer having been very great, many of these fish were found to be in a moist, slimy state, early in August last. From a quantity lying in bulk, in a store occupied by Mr. Jones, (who fell a victim to the epidemic,) a quantity of green and yellow purulent matter ran upon the floor. It was thought by the owners, that if they were spread in the sun, in the open air, the fish might be preserved; which was done, extending them a considerable distance in the street and wharves,

\* The Philadelphia writer expresses himself to the same effect as the Boston writer, in the following words. "It follows from the preceding series of facts, that animal putrefaction alone cannot be assigned as an epidemic cause, or scarcely indeed as a morbid agent."



While thus exposed to the excessive heat of the sun, with light winds, the effluvia in the neighborhood were very offensive."

Mr. Channing states that there was not even a shadow of ground to suppose that the disease was imported—and the situation of New London is elevated "with scarcely any low lands to generate marsh miasmata." The harbor is spacious, near the sea, from which refreshing breezes are experienced during the summer. The heat of the summer of 1798, it may be mentioned, exceeded both in intensity and duration, what had been known within the memory of the oldest inhabitants.\*

2. Dr. SAMUEL OSBORN relates in the *Medical Repository*, Vol. 1. p. 210, a case of yellow fever, caused by exposure to the exhalations of putrid beef. The patient, a soldier, was excused from duty on account of a violent and obstinate gonorrhea; and a lodging was assigned him in a house without the garrison, on Governor's Island. In a few days, he was attacked with symptoms of yellow fever, and as his physician observed, in his visits, a very offensive smell in the house, he ordered the cellar under the patient's bed to be examined; where were found three barrels of beef in a state of extreme putrefaction. "So exceedingly offensive was the smell emitted, from this mass of animal putrefaction, that the soldiers who were employed to remove it, were several times forced to desist, for the purpose of breathing fresh air, before they could accomplish their design." On the removal of the beef, the patient gradually mended.

3. Dr. COFFIN in a pamphlet on the danger of interments, states that—

"A man was killed by accident in Orange, New Hampshire. In about ten weeks after the burial, the body was taken up to be deposited in a different place. Twenty persons were present at the disinterment of the corpse, which was in a putrid state.—Thirteen of these persons fell sick of fever not long after their exposure to the putrid gases from the dead body, and several of them died."

"There was no other assignable cause for this fever, than these noxious gases from the dead body, the season and the place being otherwise quite healthy."†

4. In Johnson's *Medico-Chirurgical Review*, Vol. II. N. S. p. 202, there is related an instance of fever of the putrid kind, and resembling plague, produced from a putrid human body.

"An American merchant ship was lying at anchor in Whampoa Roads, sixteen miles from Canton. One of her crew died

\* See also a second letter from Mr. Channing, Vol. II. p. 405.

† I regret that the temperature of the weather is not given, though I have understood that it was hot.

of dysentery; he was taken on shore to be buried. No disease of any kind had occurred in the ship from her departure from America, till her arrival in the river Tigris. Four men accompanied the corpse, and two of them began to dig a grave, unfortunately they lit upon a spot where a human body had been buried about two or three months previously, (as was afterwards ascertained.) The instant the spade went through the lid of the coffin, a most dreadful effluvium issued forth, and the two men fell down nearly lifeless.

"It was with the greatest difficulty their companions could approach near enough to drag them from the spot, and fill up the place with earth. The two men now recovered a little, and with assistance reached the boat, and returned on board. On the succeeding morning they were visited by an assistant surgeon from an English Indiaman in the roads, who reported the following symptoms, viz. very acute headach, with a sense of giddiness and dimness of sight, (which had existed more or less from the moment of opening the grave;) eyes of a peculiar muddy appearance, resembling that generally observed in cases of Indian cholera; oppression about the præcordia; dull heavy pain in the regions of the heart and liver, with slight palpitation at times, and fluttering pulse; sense of extreme debility, with occasional convulsive or spasmodic twitchings of the muscles of the lower extremities; nausea; slight diarrhœa; rigors, succeeded by flushings of the face, neck, breast, and upper extremities; tongue white and much loaded; pulse from 110 to 120, weak and irregular; urine scanty and high-colored; skin sometimes dry, sometimes covered with a clammy sweat. On the fourth day from the commencement of the attack, numerous petechiæ appeared over the breasts and arms; and in one of the patients a large bubo formed in the right groin, and another in the axilla of the same side, which speedily ran to suppuration. To one the disease proved fatal on the evening of the fourth day; to the other on the morning of the fifth. For two days previously to death the gums bled freely. The symptoms were so completely similar in both the cases, that it is needless to repeat them here."

The post mortem appearances evinced a highly putrid state of the system.\*

One of the two not immediately engaged in digging, was attacked on the eighth day from his being on shore, with "violent retching, and laboring under all the symptoms of the former patients in an aggravated degree. Was bled twenty-five ounces, and recovered."

5. Mr. SAMUEL RUSSEL, of New York, in a letter† to Dr. MIT-

\* See Med. Chir. Rev. Vol. II. p. 203. † Med. Rep. Vol. V. 1822, p. 245.

CHELL, states, that two hundred barrels of herring, in a considerably offensive condition, were shipped, in July, 1801, to St. Croix, and the market being bad, were taken to Kingston, Jamaica, where they were placed in store.

"By this time the fish were discovered to be fast spoiling, and advancing rapidly through the putrefactive process. The master of the store and his clerk lived and slept in a room directly above that in which the fish were now lying and corrupting.—*They were both invaded by yellow fever.*"

6. The yellow fever which prevailed in Newburyport, in 1796, appears to have been caused by putrid fish.

"Respecting the origin of the disease," says Dr. Coffin, "there have been but two opinions. Some have supposed it was generated here; others, that it was imported from the West Indies in a vessel which arrived in May. The captain's account is, that about twelve days before his arrival here two of his men died on board of a putrid fever, after which he immediately cleansed the vessel by washing with vinegar, smoking it with tar, and scrubbing the cabin and steerage floors. He threw over the clothes which the sick had worn, and their bedding. Their other clothes were locked up in their chests, and afterwards sent home to their friends in a neighboring town, without communicating any infection: the rest of the crew escaped the disease. Here it may be remarked, that if the vessel, on her arrival, had been stationed at some other part of the harbor, it would have been conspicuous, whether it brought the fever or not. But not far from the wharf at which it was unloaded, a great quantity of fish had been dressed for the West Indies, and the entrails left exposed to the air. The weather being uncommonly moist and warm, the exhalation was very offensive to the neighborhood. In one of the houses nearest the fish offal, the three first persons were seized with the disease; and within twenty or thirty rods, the greater number of its victims lived. The majority of those who recovered lived in other parts of the town. Most, if not all, who had it at a distance, had frequented the infected neighborhood, but did not communicate the infection to their attendants. These are the principal facts from which the fever's origin must be determined."\*

7. "In the summer of the year 1783, M. Faure, a merchant of Narbonne, in Lower Languedoc in France, bought a house which had previously been occupied as an anatomical hall; and being desirous of having a cave dug in the cellar, employed three men to do it. In digging, they came to the wall of a necessary, which had been the common receptacle of the remains of human

subjects, and which was covered in to prevent detection; and, on extracting a few of the stones with their picks, an offensive, putrid matter rushed through the aperture, and suffocated them. M. Faure, going to see the workmen, descended but two or three steps before he fell senseless. The neighboring people, perceiving the putrid smell, went to the house; and of nine that entered to bring out the sufferers, six died. M. Faure was removed, but died in four days; and the unfortunate laborers survived their release but a day or two.

"In the mean time, the smell increased to such a degree, as to create a pestilence, and the neighbors were obliged to remove, but a great many of them died. The Mayor of the city being informed of the circumstance, had the cellar filled up, and the house closed. But the malignant effluvia had pervaded the town, and a great many died of the *pestis*. The disease was attended with the black vomit, but not communicated by contagion."\*

8. In Washington, a small village, containing about four hundred inhabitants, situated six miles from Natchez, and occupying a high situation, remote from any swampy ground, the yellow fever prevailed in 1823, and was unquestionably occasioned by a quantity of putrid fish, and hams, lodged in a grocer's store. A minute and faithful history of the fever is given in the Medical Recorder for April, 1826, by a distinguished physician, Dr. S. A. Cartwright, on whose mind there appears to have existed not the shadow of a doubt, that it was solely referrible to the above mentioned cause. The great length of his paper prevents its insertion in this essay.

9. Dr. Caldwell, in his appendix to Alibert, p. 61, traces the yellow fever of one season in Philadelphia, to heaps of decaying oyster remains. The account is drawn out at too great length for insertion, but the proofs are satisfactory to my mind.

10. In Dieppe, a city in France, a pestilential disease was produced in 1776, by putrid oysters in the shell. Cited by the foregoing author from "observations on the epidemic diseases, and constitution of France."

11. "It appears, from a statement by Dr. Dick, published in the Medical Repository of New York, that the pestilential fever which prevailed in Alexandria, in 1803, originated from the septic exhalations thrown into the atmosphere by a large bed of putrid oyster shells."

12. Dr. Rand, in his history of the yellow fever in Boston, relates the case of a person who was employed to remove some hides in a very putrid state, upon a point of land opposite Wheeler's wharf and who sickened and died on the third day. This history of Dr. Rand describes the masses of animal

\*Med. Repos. Vol. IV. p. 245.

matter in a putrid state on Fort-hill, Stoddard's wharf, &c. and the cases of the fever that originated from them.\* "Three lads, apprentices to Mr. Manston the cooper, by repacking some of this beef, were seized with the fever and died."

Now, had the same number of persons been employed in moving the coffee on the wharf in Philadelphia, and all shared the same fate, is it likely that such a difference of opinion would have existed respecting the origin of the fever in that city in 1793?

13. A case is reported by Dr. Cogswell, of Hartford, of a man who was attacked with putrid fever, by passing a night in a boat containing barrels of putrid and highly offensive beef.†

14. "In 1748, at New York, a great quantity of salt beef, partly putrid; having been purchased by poor persons, took it to their chambers, and they were almost all victims of the yellow fever."‡

15. Ship General Green sailed from Newport to the West Indies, and a great part of her crew were attacked with malignant fever. She had on board putrid fish and beef, that was so offensive as to require being thrown overboard. Here I would observe, that, although the animal putrefaction was the most apparent cause yet some may feel disposed to cavil, and attribute it to vegetable putrefaction in the vessel.

16. In the month of July, 17—, a very corpulent lady died at ——. Before her death she begged as a particular favor, to be buried in the parochial church. She had died on the Wednesday, and on the following Saturday was buried according to her desire. The weather at the time was very hot, and a great drought had prevailed. The succeeding Sunday, a week after the lady had been buried, the protestant clergyman had a very full congregation, upwards of nine hundred persons attending, that being the day for administering the holy sacrament.

It is the custom in Germany, that when people wish to receive the sacrament, they neither eat or drink until the ceremony is over. The clergyman consecrated the bread and wine, which is uncovered during the ceremony. There were about one hundred and eighty communicants. A quarter of an hour after the ceremony, before they had quitted the Church, more than sixty of the communicants were taken ill; several died in the most violent agonies; others of a more vigorous constitution survived by the help of medical assistance; a most violent consternation prevailed among the whole congregation throughout the town. It was concluded that the wine had been poisoned. The sacristy, and several others belonging to the vestry, were

\* Med. Repository, Vol. II. † See Webster on plague and Pestilence.

‡ Dic. des Sciences Medicales, Vol. XXX. page 548; extracted from Valentin, p. 121 to 124.

put in irons. The persons accused underwent very great hardships: during the space of a week they were confined in a dungeon, and some of them were put to the torture, but they persisted in their innocence.

On the Sunday following, the magistrate ordered that a chalice of wine uncovered should be placed, for the space of one hour, upon the altar; the hour had scarcely elapsed, when they beheld the wine filled with myriads of insects; by tracing whence they came, it was perceived, by the rays of the sun, that they issued from the grave of the lady who had been buried the preceding fortnight. The people not belonging to the vestry were dismissed, and four men were employed to open the vault and the coffin; in doing this, two of them dropped down and expired on the spot, the other two were only saved by the utmost exertions of medical talents. It is beyond the power of words to describe the horrid appearance of the corpse when the coffin was opened. The whole was an entire mass of putrefaction; and it was now clearly perceived that the numerous insects, together with the effluvia which had issued from the body, had caused the pestilential infection which was a week before attributed to poison. It is but justice to add, that on this discovery, the accused persons were liberated, and every atonement made by the magistrates and clergyman for their misguided conduct.\*

17. "The sepulchral vaults of the principal church of Dijon, having been entirely filled, in consequence of the winter of 1773, which froze the ground of the common cemetery to such a depth that it could not be opened, orders were given to remove the bodies from these subterraneous repositories. Several attempts were made to purify the air by the detonation of nitre, by fumigations of vinegar, by burning a variety of perfumes, storax, benzoin, &c. &c. and by sprinkling the pavement with a large quantity of *anti-pestilential* vinegar, known by the name of *vinegar of the four thieves*. The odor of the putrid effluvia was merely masked for a moment by these operations, and soon reappeared with its former activity, spreading to the neighborhood, where the symptoms of a contagious fever began to appear. At this period I was consulted on the means of destroying the source of the distemper."†

The above instances are sufficient in my mind to establish the fact that animal decomposition in particular stages of it, and under certain circumstances, will produce certain fevers, viz: the yellow and the putrid. Omitting further evidence in my posses-

\* Gazette of Health, No. 1. p. 2.

† Treatise on the Means of Purifying Infected Air, &c. By L. B. Guyton de Morveau, p. 25.

sion, I shall now content myself with adverting, in a few words, to what seem to be necessary conditions to give activity to the process.

1. It must be in certain stages of the process, viz. fermentative, as Burdach of Leipzig, before mentioned, terms it; that is to say, from two or three weeks to several months, varying no doubt according to circumstances of situation and state of the materials. The above instances confirm this opinion.

2. The heat must range at from not far below 80 to 100 degrees, if the materials are uncovered, though in a grave it must necessarily be less.

3. The mass must be large and moist.

4. I may remark that it seems to be immaterial whether the substance be free from salt, or imperfectly cured by it, though the evidence from the foregoing cases, and from those that are to be added in the appendix, rather goes to prove that a little salt hastens the process, and this accords with the effects of partially salted vegetables as salt marshes; and it is remarked by Webster and M. Brown, that fresh meat in water slightly salted, will corrupt sooner than in perfectly fresh water.

Let it be recollected as a matter of some weight, that the negative evidence of Dr. Bancroft and others, viz. the cemetery of St. Innocens, Dunkirk, &c. were adduced by a man who aimed at a victory over what are called contagionists, and in doing so, to establish by evidence the innoxious nature of animal putrefaction, in which he has endeavored to make the most of the facts his industry could collect, and who has evidently perverted them, (in some particulars at least,) to suit his purpose; whilst the instances I have adduced as proof against him are from the pens of men who had no favorite hypothesis to establish, nor any motive to deviate from a plain statement of facts. There does appear then sufficient evidence for the conclusion, that yellow and putrid fevers do result from animal decomposition, though for reasons before stated, viz. scarcity of materials in the proper season of the year, and other necessary circumstances, they are comparatively of rare occurrence.

To the evidence drawn from cases, I will add the result of the experiments of Gaspard\* and Majendie, made to show the effects of putrid animal and vegetable substances introduced into the veins. Supposing vapor to be the Medium by which the febrific agent is involved, how does it effect the system? It is first inhaled into the lungs; these, according to Majendie, expose a surface at each inspiration, "several times greater than that of the human body;" thus, admitted, it enters the blood, for odors

\* Gaspard, as given in page 24 to 37 of Vol. I. No. I. Monthly Journal of Medicine.

are found by experiments to enter the circulation at a single inspiration. Now Gaspard proves that putrescent animal substances injected into the blood produce prostration of strength, dysentery, inflammation of the stomach and intestines. Water impregnated with vegetable putrefaction, produced similar though less violent symptoms. M. Majendie has also produced in the same manner diseases resembling those which result from vegetable malaria. He ascertained that infusions of different kinds of putrid animal substances were followed by different effects," "that water in which putrid fish had been soaked," (mark the coincidence with the cases I have cited of yellow fever produced by fish,) "produced when injected into the blood, symptoms resembling yellow fever."

III. *The comparative influence of both animal and vegetable decomposition as a cause of fever.*—I will not undertake to say what would be the proportion of cases of fever, if decomposing animal matter were as abundant in hot weather as vegetable matter is; nor will I say that it would then cause all the kinds of fever that I have shown in the first part of this essay do proceed from vegetable malaria. Perhaps it is the adynamic kind of fevers only, as malignant, yellow, and putrid, that can be produced by it. If so, there would then be a vast disproportion in the number and kinds of fevers that result from the two causes. As it is, taking into consideration the disparity as regards quantity of the two kinds of matter actually existing in a state of decomposition, I think that the cases I have shown authorize the inference, that the febrile effects of animal and vegetable decomposition, so far as regards putrid and yellow fever, are about equal.

*Providence, R. I. August, 1830.*

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ART. V. *Observations on the nature and treatment of Cynanche Trachealis.* By R. N. ALLEN, M. D. Harford Co. Md.

In the few remarks which I propose to offer, in relation to the nature and treatment of Croup, I shall confine myself chiefly to a statement of my own views, and of the results of my own experience, without attempting any full discussion of the subject, or stopping to bestow much attention upon the opinions of others, either in the past or present time. It is the practice which



I have pursued, and the results which have attended it, to which alone I am disposed to attach any importance. For these I would solicit an impartial and attentive consideration; without desiring in any way to discredit the reports of others, who may have treated the disease successfully by other methods.

Medical writers, so far as I know, agree in considering the croup as an inflammatory affection of the trachea, or of this and the bronchial passages; ending in the effusion of mucus or mucopurulent matter, sometimes concreted by evaporation into the form of a membrane. It is also I believe agreed, that the matter thus thrown out, is the immediate cause of death, by the mechanical impediment which it presents, to the performance of respiration. Doctor Cullen indeed supposed a spasm of the glottis to be a frequent cause of the suffocation which occurs; but he considered the disease as inflammatory in its origin, and relied chiefly on depletion; declaring that he had found antispasmodics useless. My own opinion is, that the condition of the air passages is not in general such as amounts to the disorganizing process termed inflammation;\* but that it for the most part consists of a high degree of catarrhal irritation, attended by vascular fulness, and resulting in effusion. That this irritation however, like all others, may terminate in inflammation, with all its consequences, is a pathological fact too well known, to require either illustration or proof. But that actual inflammation is not present in most of the cases, may, I think, be fairly inferred, from the general absence of local pain, and from the fact, that there is commonly no lesion of the mucous membrane to be found on dissection. Those patients, too, who are relieved by art, frequently recover from the most violent attacks so rapidly and perfectly, as to leave little room for the belief that inflammation had existed. I have often seen children running about, apparently almost well, on the day succeeding the most acute and dangerous seizures of croup, and indeed I cannot confidently recollect, after a practice of more than ten years, ever to have visited the same patient oftener than two or three times in a single attack.

It is wholly unnecessary for me to describe with any degree of minuteness a disease so well known, even to the common people. It is sufficient to say, that it is commonly ushered in by a catarrhal and febrile affection of indefinite duration—but frequently continuing for several days, before the occurrence of the urgent symptoms. These are the result of the gradual obstruction of

\*I shall not here stop to inquire into the correctness of the Broussain doctrine—that irritation differs from inflammation only in degree. Certain it is, that the former very often ends in the latter.

breathing, which arises from the effusion of mucus in the respiratory tubes. Sometimes however, the preceding catarrhal symptoms are of very short duration; and the disease is suddenly developed, in its most violent forms.

The actual existence of croup in a degree attended by immediate danger, is characterized by the single symptom of the whizzing sound arising from respiration, conveying the idea of the air being forcibly drawn through a very narrow aperture. This sound admits of no further description in words; but must be familiar to all who are in the habit of hearing it. Notwithstanding the distress in breathing, the child quickly falls into a state of stupor; lying with the head thrown back, and the eyes closed, or as frequently happens, half open. Both the vascular system and the muscles are in a state of evident agitation; and the stupor is interrupted by occasional cough. The patient, also, though apparently insensible, is capable of being at any time aroused; and never fails to resist, to greater or less extent, the administration of medicines.

I do not remember ever to have seen a case of croup in a child above six or seven years of age; though doctor Cullen states the age of twelve, as the limit of its occurrence.

After a careful examination of the matters thrown up by vomiting and expectoration, in numerous cases, I must declare with doctors Ferriar\* and Chapman,† that I have never seen the adventitious membrane so much spoken of by writers.

It is wonderful that a disease so fatal as croup, and which must have existed in all ages, should have never been treated of as a distinct affection, till within the last 65 years. The first notice of it is said to have been given by doctor Home, of Edinburgh, about the year 1765.

The croup, or at least that degree or form of it which threatens immediate suffocation, is a disease of by no means very frequent occurrence. A practitioner in the country, practising to considerable extent, will not perhaps generally see more than half a dozen cases in a year. There is however a milder form which is far more common; but I am doubtful whether such cases are to be distinguished from more serious attacks, otherwise than by the milder character of the symptoms—they seem to me to differ from the severer forms, only in degree. I can see no just ground for the distinction attempted by doctor Ferriar, into *genuine* and *spurious*; the latter of which he says, *cures itself*. To maintain this distinction, he relies on the absence of *shrillness* and *sibilation* in what he terms spurious croup; and on the less degree of vascular and nervous agitation, by which it is attended. It seems

\*Medical Histories and Reflections, vol. iii.

†Philad. Med. and Phys. Journal.—Reviewed Med. Recorder, vol. iv. p. 310, &c.

obvious however, that the shrill and hissing respiration, and the general agitation, sometimes heightened to convulsion, which attend the more serious attacks, merely denote a greater embarrassment in the function of respiration, arising from the progressive diminution of the space allowed for the transmission of air to the lungs. I am disposed to insist the more strongly on the fallacy of the distinction attempted by doctor Ferriar, and perhaps received by some of the practitioners of the present day; because I think it might lead to a dangerous neglect of the lighter forms of the catarrhal dyspnœa of children. Whenever their catarrhal affections are attended by any considerable degree of wheezing, they should always be regarded as objects of serious attention, and should at least be carefully watched. Some of the severest and most dangerous cases of croup which I have ever witnessed, have been preceded by a wheezing of milder character, of several days continuance. There is indeed a form of dyspnœa occurring in children, which is merely sympathetic of abdominal irritation, very often of worms, and which is truly different in its nature from that which constitutes croup, or which terminates in that disease. I have not observed such cases with sufficient care, to be able to form any certain distinction between them and the croupy dyspnœa, except the obvious connection of the former with abdominal irritation, and their not being accompanied or preceded by catarrh. I conclude this branch of my subject, by declaring my belief, that the catarrhal dyspnœa of children is always identical in its nature with croup; being caused by irritation of the mucous membrane of the air passages, ending perhaps uniformly in effusion to greater or less extent, and sometimes in actual inflammation.

The indications to be observed in the treatment of this disease, seem to be reducible to the two following:

1. To diminish or remove the inflammatory affection of the trachea and bronchia.

2. To throw off the effused matter. Where the grade of action is such as will bear active depletion, the former of these indications, is obviously that which should be first attended to in the order of treatment; as its fulfilment, so far as practicable by direct depletion, will be attended by very little loss of time; and not only does not interfere with the accomplishment of the latter object, but materially facilitates it. But the means instituted solely for the removal of the inflammatory process, are very seldom worthy of exclusive reliance; while the continued and persevering ejection of the mucous matter which obstructs the trachea, is, I am persuaded, the most important part of the treatment. From losing sight of this while endeavoring to combat the inflammatory action, I am convinced that a large share of the mor-

tality has arisen, which has rendered the croup so formidable a disease. In a great majority of the cases which I have seen, the remedies necessary to sustain the long-continued vomiting—which alone I consider as entitled to general or exclusive confidence, were also nearly sufficient to reduce the excitement to a proper grade; and I am disposed to think, that emetics alone would have succeeded in by far the greater proportion of them; while I am fully persuaded that in a great number, all other remedies would have failed, without emetics.

With these few preliminary remarks, I proceed to give, in detail, the course which I have pursued in the treatment of croup; and in doing this, I shall consider in succession each class of the remedies commonly employed.

1. Bloodletting.—When a case of croup is seen in the earliest stage, while the skin remains hot and dry, and the pulse firm and resisting; I concur with the mass of the profession in considering venesection as a remedy of decisive efficacy. Even in the later stages, it sometimes happens that the powers of the general system remain sufficient to bear its free employment. I have been informed of one case of several days' duration, which retained a very threatening aspect, but was immediately relieved by copious bleeding. I was informed by the practitioner who treated this case, that the pulse at this late period, still remained hard and wiry. I am disposed to think, however, that in a great majority of cases, the period during which the lancet is admissible is very transient—probably not in general lasting longer than from two to four hours. But on this point I am unable to speak with much precision, having very seldom seen my patients till from four to six hours or longer after the attack. I can only say, that I have very rarely resorted to bloodletting; and yet my success has been absolutely uniform, as I have never, during a practice of more than ten years, seen a solitary case of death of croup, or any tracheal disease resembling it. Within this period, I have treated at least 50 or 60 cases of its most violent forms, in most of which immediate suffocation was threatened. I do not remember to have bled in more than two cases out of the whole number—in almost all the others, I found the skin relaxed, and the pulse by no means firm. Under these circumstances, I did not think venesection indicated; and was always apprehensive that it would not leave strength sufficient to bear the operation of the other remedies. The uniformly successful result shews that its employment would have been at least unnecessary.

In advancing these views in regard to the use of bloodletting, in croup, I should feel great diffidence, were they not supported

by unvarying success, through the whole course of an experience which I think has been sufficiently long, and extended, to preclude all doubt as to their propriety, and to leave no room for supposing the cases treated, to have differed in any local or temporary circumstances, from those usually seen by others. I cannot therefore avoid the inference, that the plan which I have pursued is proper for general adoption. I am aware that the prevailing sentiment of the profession is in favor of venesection as the principal remedy in nearly all cases, without much discrimination; but the views which I take of the treatment are nevertheless sanctioned by several writers of considerable authority. The results of my own experience have been such as are above stated; and these I feel myself obliged to give, without regard to their variance from or coincidence with the opinions, or even the experience of others.

It will be observed, however, that I am by no means disposed to exclude the lancet from the list of remedies for croup; but consider it as a means possessing decided efficacy, wherever it is indicated by the condition of the system. But I am also of opinion as above stated, that the period during which it is admissible, is for the most part of short duration; and that after this is past, its employment is full of danger. It would perhaps rarely destroy life by direct and immediate exhaustion; but would very generally render the system incapable of sustaining the operation of those remedies, which by throwing off the obstructing matter effused in the air passages, strike more directly at the immediate cause of the symptoms. A copious bleeding, a dose of 10 or 20 grains of calomel, and afterwards the protracted operation of an emetic, especially if it be composed of tartarized antimony, together constitute an exhausting process which it would require the hardiest vigor to resist.

I have observed local bleeding to be much insisted on in a late number of the *Amer. Journ. of the Med. Sciences*;\* but am persuaded that where the abstraction of blood is at all indicated, this should never supersede the use of general bloodletting, and where this is not the case, I can confidently say, from much experience, that it is by no means necessary. Local bleeding could not be adopted simultaneously with emetic medicines, and I am fully convinced that it should never be relied on to the exclusion of the latter. Hence it could not become an object of consideration till the violence of the disease were past; as the emetic process should never be long intermitted, while there is any serious obstruction of the breathing. At all events, the im-

\*By doctor Jackson, of Philadelphia.

possibility of obtaining leeches in the country; on such emergencies, places the remedy beyond the reach of almost every country practitioner.

2. Cathartics. Of this class of remedies I shall say but little. If the case should become protracted, they would certainly possess some importance; but the event must in general be decided, before they can be brought to act. Under this head, however, I shall consider the use of calomel; which perhaps holds the next rank to bloodletting as a remedy for croup, in the estimation of the majority of physicians in this country. I have never known it to be separately used: and as it is generally used in conjunction with other remedies, of acknowledged efficacy, I am by no means satisfied that it is as important as it is commonly considered. I regard it however as a remedy of some efficacy in croup, but believe that it would rarely succeed if made the principal object of reliance. As it constitutes a part of every plan of treatment adopted or recommended by the profession, I have never felt myself authorized to dispense with it in any case; and am of course unprepared to give any estimate of the precise degree of importance to be attached to it as an ingredient in our plans. The croup is a disease too violent and rapid, to allow time for experiment on the separate efficacy of each remedial agent employed in its treatment. I may however safely say that it is not the cathartic operation of calomel, to which its beneficial agency is attributable; as it can very rarely be brought to act on the bowels, before the violence of the disease has been materially abated. The benefit derived from it, probably arises from its general antiphlogistic agency; by which it may diminish or arrest the inflammatory action in the mucous membrane of the air passages, and thus put a stop to the effusion.

Though I in general adopt the free use of calomel as a remedy in croup, I by no means approve of the enormous doses which are frequently given, and the use of which is sanctioned by the highest authority. I am convinced that when preceded by copious bloodletting, as it often is, and accompanied or followed by large doses of emetic medicine, as it must commonly be; it not unfrequently concurs in producing a fatal degree of exhaustion. Two melancholy cases have also fallen within my knowledge, where a fatal gangrene of the fauces was induced by large doses of calomel, given for the cure of this disease. Under what circumstances or mode of administration these fatal events occurred, I have never been able to learn; and delicacy towards the attending practitioner, has probably precluded inquiry. The cases are however well calculated to inspire caution in the use of the herculean doses of calomel so much recommended in croup.

I uniformly begin the treatment of this disease with a dose of

calomel, varying the quantity from 5 to 8 or 10 grains, according to the age of the child, the strength of the system, and violence of the attack. About half the original dose, is repeated every one, two or three hours, according to the degree of disease, till from 15 to 25 grains have been given in the whole—provided the symptoms continue unmitigated. This quantity I never exceed; and in case of much depression of strength, or a material abatement of the symptoms, often stop far short of it. Indeed, the original dose, followed by the persevering use of emetic medicines, will frequently be sufficient. After giving the first dose of calomel, I allow an interval of 20 or 30 minutes to elapse, before the administration of any other medicine, lest the calomel should be rejected by puking. I think it also a necessary caution, that the bowels should be freely opened within a few hours after the administration of large doses of calomel for the cure of croup. This object I have commonly accomplished by the frequent repetition of castor oil, a great quantity of which is often required.

3. The warm bath.—I believe this to be a remedy of some importance in the treatment of croup. It powerfully relaxes, for the most part produces perspiration, and favors the action of emetics. The child should be immersed to the neck, and kept in from 10 to 15 minutes; or till a good deal of relaxation occurs. Whenever bloodletting is proper, it should precede the use of the bath: a dose of calomel should be given immediately after the bleeding, and the warm bath may immediately succeed this. An emetic dose may be given, either before, or immediately after the immersion—should the strength be considerable, I would prefer the former. The warm bath may be repeated whenever additional relaxation is required, every 1, 2 or 3 hours; according to the urgency of the disease, and the degree of strength remaining. Immediately after each immersion, the child should be carefully wrapped in flannels or a blanket; and I have in general thought it most convenient to keep it without its ordinary clothing, so long as a repetition of the bathing was likely to be required, or while the perspiration continued—in fact, it has seldom been replaced until the final mitigation of the disease.

4. Blistering.—A blister should always be applied near the seat of the disease, as soon after the first depletory measures, as circumstances will allow. It could not be kept steadily applied till after the action of the first emetic; and this, when preceded by a dose of calomel, will very often afford so much relief, as to render blistering unnecessary. Some difference exists in the practice of physicians, as to the part to which the blister should be applied in this disease. Influenced, perhaps, by tradition and early habit, I have myself, always placed them up on the breast;

and I observe that doctor Ferriar also adopted a similar practice. They are, perhaps, more commonly applied on the throat, but I know of no facts which warrant a decided preference of either situation. I presume, however, that it would be very difficult, if not impracticable, to keep a blister on the throat during the continuance of vomiting; and I am of opinion that this process should never be long discontinued so long as the urgent symptoms last. This consideration is probably decisive, in favor of selecting the chest as the proper place for the application of blisters.

5. Expectorants.—This class of remedies, though capable of fulfilling indications of some importance in protracted cases, and useful as auxiliary to other medicinal agents of greater activity, is worthy of but little confidence during the continuance of urgent symptoms. The principal expectorants used in the cure of croup, are the seneka root and squill; articles which I consider as very closely allied in their medicinal powers—especially as exerted on the lungs and air passages. The former is the only remedy of the class, which I have ever employed during the acute stages: in the decline of the disease I have occasionally used the squill, alone or in various forms of combination.

The seneka appears to have been first introduced into the treatment of croup, by the doctors Archer of this county; and I believe was made the subject of an inaugural thesis, by the late doctor John Archer, Jr.—to this I regret that I have not now a convenient opportunity of referring. I shall proceed however, to give my opinion as to the merits of the remedy, as deduced from my own experience and observation: I am clearly of opinion, that it is never worthy of being relied on as the principal remedy, except in very mild cases; and that even in these, its emetic operation is the only decisive effect which it can be made to produce. In order to succeed in this way, it must be given much more freely and frequently than is advised by the doctors Archer—as their practice is stated in Thatcher's Dispensatory. I do not think the process of expectoration, to be depended on for the discharge of the obstructing matter from the trachea, in any urgent case; though so far as expectorants are employed, I think the seneka entitled to a decided preference. In mild cases also, it may very generally be made to act sufficiently as an emetic, and in this way sometimes procures an early solution of the disease; especially when preceded by calomel or venesection, or both. When its emetic effect is desired and depended on, instead of giving it every half hour or hour, with minute doses in the intervals, as is advised by the doctors Archer,



I give  $\mathfrak{z}\text{i}$  (drachm) of the decoction every 5, 10 or 15 minutes, according to the age and strength of the child, and the urgency of the symptoms; assisting its emetic effect by the copious ingurgitation of warm water, and, if necessary by irritation of the fauces with a feather. I make it a common practice to direct its use in this way, in the intervals between my visits, in case of any considerable increase of the wheezing, which almost always remains for a day or two after violent attacks. On the decline of the disease too, besides using this remedy or squill as an expectorant, it will often be useful, to excite occasional vomiting by the same means. When given in the early stages, and preceded by calomel, it will, by the above mode of management as an emetic, very frequently succeed in relieving mild cases of croup, and sometimes even those of a more serious character. In treating severe and urgent cases of croup, I never however depend on seneka as the principal remedy, or as capable of fulfilling any indication of decisive importance; but very generally give it in the intervals between the other medicines, in a manner similar to that advised by the doctors Archer.

6. Emetics.—These I regard as the principal remedies for croup, in every case whatever: no mode of treatment is in general to be relied on without them. They fulfil the great primary indication of removing the effused matter which is the immediate cause of the obstruction of respiration, and of death where this occurs. Except where the inflammatory action runs so high as to threaten ultimate disorganization of the parts concerned, I believe they would very generally succeed without any other remedy whatever. Except in such cases, I am of opinion, that even though the process of effusion should continue for a considerable time; still the constant removal of the mucus, from time to time, deposited in the trachea, would almost always prevent suffocation. It would nevertheless be improper to omit the use of those adjuvants which have the sanction of established usage, among which I regard calomel and the warm bath as the most important. Bloodletting should also be premised, where the reaction is such as to indicate it. In fact, the persevering use of emetics is by no means incompatible with the employment of any other remedy, which we may think proper to adopt.

In giving emetic medicines for the cure of croup, I never rely on that degree of vomiting which usually follows from the action of a single emetic. In severe cases, I for the most part find it necessary to maintain a continued vomiting at intervals for several hours; placing no limit to the continuance of the vomiting, except the relief of the symptoms, observing the caution above inculcated, as to the exhaustion of the system to too

great an extent in the early stage of the disease, I have never found my patients unable to bear as long a continuance of the emetic process, as was necessary to affording relief.

I now proceed to mention the particular emetic medicines which I prefer and have always used, and to describe the manner in which I have been accustomed to administer them. To a child 3 or 4 years old, I begin by giving 5 grains of sulphate of zinc and the same quantity of ipecacuanha, about 20 or 30 minutes after the first dose of calomel. After waiting about half an hour for the operation of the first emetic dose, if it should fail to operate actively, I give 1 or 2 grains of sulph. zinc, and repeat this quantity every 10 or 15 minutes, till sufficient vomiting occurs. Should the emetic operation subside too much under these doses, before the violence of the disease has been subdued, I interpose an occasional dose of 5 grains of sulph. zinc, and again resume the use of the diminished quantities. In this way I have often given from 30 to 60 grains of this emetic in the course of a few hours, without ever experiencing from it any ill consequences whatever. A part of the quantity dissolved for use is of necessity wasted, or rejected instantly on being swallowed; and perhaps there is not in general more than a few grains remaining on the stomach at any one time. I have however, known as much as 20 grains to be given and retained, before any vomiting took place, and without the slightest injurious effect.

It occasionally happens that emetic medicines, will fail to produce full and continued vomiting, in whatever quantity they may be administered. In such cases, life will depend on sustaining the emetic process by other means. Of these, the most important is the resolute and persevering irritation of the throat with a feather, assisted by forcing the patient to swallow warm water copiously—pouring it down the throat, while the nose is held by an assistant. The feather used, should be the extremity of a common writing quill, and this should be thrust considerably down into the throat. To this simple expedient I attach great importance, and am convinced that by the persevering use of it, I have saved more than one life.

The administration of the emetic and other medicines required in croup, and indeed the whole course of the treatment, makes an extraordinary demand on the resolution and perseverance of the practitioner; and very frequently requires a strong and determined resistance to the sympathies of the parents and other friends. I have reason to believe, that a want of this determination, or a compliance with the misguided sympathies of the bystanders, may sometimes lead to fatal consequences. It should always be remembered, that the preservation of the life

of the child, is the only true object of benevolence, whether in relation to itself, or to those having an interest in its destiny.

I will now recapitulate, very briefly, what I have said in regard to the treatment of croup, by giving a short repetition of the order in which I employ the remedies above recommended.—If the state of excitement will justify it, which I have very seldom judged to be the case, I first employ the lancet freely; after this I give a full dose of calomel, which I repeat in smaller doses, if the symptoms long remain violent; this is followed in about half an hour by the emetic medicines above advised. When the warm bath is employed, I use it soon after the first dose of emetic medicine; and generally apply a blister to the breast shortly after the child is taken out of it—unless indeed the existence of active vomiting, should render it necessary to delay its application. Relying chiefly on the emetic medicines, I interpose seneka as an expectorant, whenever an alleviation of the symptoms will allow a suspension of the puking for any considerable interval. Finally, I think it a necessary caution, that we should persevere in the use of castor oil, or some similar cathartic, until the bowels are freely evacuated. It is obvious however, that no remedy of this kind can be used, so long as the violence of the disease requires the support of active vomiting. The precise mode of administration, has however, been indefinitely varied in regard to all these remedies, so as to suit the emergencies of particular cases. In relation to the symptoms by which we should regulate the continuance of vomiting, I am of opinion, that this process should be sustained with but little interruption, until the *whizzing* sound, attending the respiration, is exchanged for a loose wheezing. Entire relief is not to be expected immediately, and this latter degree of the disease, is in general controllable by other remedies, sometimes assisted by an occasional emetic.

I prefer the sulph. zinc in the treatment of croup, to every other emetic, because the large doses commonly required of whatever emetic we may employ, are not dangerous; as well as because it acts with great promptitude, and small repeated doses will, for the most part, produce immediate, but moderate puking—in a word, because it is safe, prompt and effectual. I am aware, that other articles from the class of emetics have strenuous advocates among the profession: of these perhaps the principal are the sulphate of copper and turpeth mineral. I cannot however, persuade myself, that either of these is so uniformly safe and mild in its effects, as I have found the sulph. zinc to be, and I can say with some confidence, that neither is more prompt or efficacious. I cannot however, say any thing of them from my

own experience, which has been confined almost entirely to the sulphate of zinc as an emetic in croup.

I know that there are several writers who recommend emetics as the principal remedies in this disease, but regret that I have not been able to consult their views in relation to the details of treatment. Doctor Francis of N. York, relies chiefly on the sulphate of copper as an emetic; but I have not seen his mode of using it, or his general treatment stated in detail. The experience of a doctor Hoffman, of Germany, as stated in Hufeland's Journal, is extremely remarkable. He depends, like doctor Francis, chiefly on the sulph. cupri, and declares that he had not lost a single patient with the disease in a practice of ten years, though he had treated a great number of cases. The experience of this physician in this respect exactly corresponds with my own; and I will venture to assert that no success at all, approaching that which has attended our practice, has ever been attained by any practitioner who has not made emetics the principal objects of his reliance.

The absolute uniformity of my own success in croup, continued through so long a period, has, of necessity, led me to the belief that a fatal event in that disease ought to be extremely rare: and therefore that there is something wrong in the mode of treatment commonly pursued. I am disposed to think that the practice here laid down would almost universally succeed, if commenced before the patient was actually expiring from suffocation; provided the strength remained sufficient to bear the operation of medicines to the necessary extent. It is of great importance then to inquire what are the errors commonly committed; and on this subject I shall proceed to state my opinions:—the freedom and confidence with which I shall advance them, will not, I trust, subject me to the charge of presumption, when it is considered, that in endeavoring to trace the sources of the mortality so common in croup, I am only using my exertions to attain the ultimate object of our science—the saving of human life.

I think then that the following are the principal sources of mortality, above what the nature of the disease, and the complications existing in particular cases, may render unavoidable.

1. The employment of tartarized antimony as an emetic, is the first source of mortality which I shall mention. Whatever kind of emetic may be employed in croup, it will often, as before observed, be necessary to give large quantities of it, before full vomiting can be produced. When tartar emetic is used for this purpose, the quantity thus required will not unfrequently produce a fatal degree of prostration, before it can be brought to excite puking. This medicine, under all circumstances, should

be used with some caution, even in the diseases of adults; and to them it not unfrequently proves dangerous or fatal. But when administered in large quantities to children of so early and tender an age, and preceded, as it for the most part is, by other highly debilitating agents; I am persuaded that it must often be productive of fatal results. Nor can the danger be avoided by any regulation of the dose—if we determine to give only a certain limited quantity, the patient may perish for want of the emetic operation which it was intended to produce; or from this cause and the resulting prostration combined; if on the other hand we continue its administration with the view of producing emesis at all hazards; still we will sometimes fail to accomplish our object, and fatal prostration will supervene. In speaking thus, I am by no means stating mere inferences from the general agency of the medicine—my cautions are grounded on some observation of effects, such as I have pointed out. At least half a dozen cases of death, directly and obviously resulting from the ordinary use of tartar emetic, have fallen within my own immediate knowledge: and of these one was a case of croup, which did not exhibit an alarming aspect, before the administration of the medicine. The child, which was the subject of this case, seemed better when the physician arrived, and was sitting on its mother's knee. A puke was however thought necessary, and a dose of tartar emetic administered. A deadly sickness ensued, attended by lividness and prostration; and the little patient expired in about half an hour.

If tartar emetic should ever be employed in the treatment of croup, its use ought to be limited to the earliest stage, and to children of robust habits, with full reaction. Even in such cases I am disposed to think it better to avoid the use of this medicine, as I doubt whether it could be safely adopted after full bloodletting, which, under such circumstances, should always precede the administration of emetics. The sulph. zinc, and ipecacuanha, given in the way above recommended, will, I believe, accomplish all that is to be expected from emetics; while the prudent use of them is always perfectly safe.

2. I am disposed to attribute a considerable share of the mortality which occurs in croup, to the indiscriminate and profuse employment of the lancet; succeeded as almost always must be by calomel and emetics, which are also very debilitating remedies. The croup, like all other diseases which in the outset greatly impair any of the vital functions, frequently produces in a few hours, a considerable degree of prostration of the general system, attended by a depressed action of the blood vessels, and relaxation of the cutaneous surface. In this condition, I am convinced that copious venesection, followed by the other

remedies necessary, would very often lead to fatal results. That it is very often thus fatally employed, I have no room whatever to doubt, considering that most writers and practitioners speak of it as a remedy of almost universal application in croup; and that I have myself seen so very few cases where it seemed to be indicated; while not a solitary instance has ever occurred to me, where any serious consequence followed its omission. Many writers, when speaking of the use of the lancet in this disease, advise its employment with very little caution or discrimination; maintaining, that if the case be favorable to its application, relief will certainly be obtained; and if otherwise, it can at least do no harm, as the patient must have perished without it. Such views are not only utterly erroneous, but dangerous in the extreme. They rest on a false and gratuitous assumption of the inefficacy of other measures.

But the dangers arising from indiscriminate and excessive bleeding in croup, are by no means confined to the fatal prostration which must sometimes arise, from the accumulated effect of it and the other remedies employed. For if the practitioner should discontinue the use of emetics and other debilitating remedies before this result had occurred, the patient would nevertheless be often lost, from the impracticability of pushing the use of those remedies further. Long continued vomiting I regard, as by far the principal resource, to which all other means are to be regarded as subordinate; and to produce, by the previous use of bloodletting, a degree of debility which would render it impracticable to continue this process sufficiently long, would cut off one main resource; and thus give rise to a fatal result, with the same certainty as if this had been caused by direct prostration. The indiscriminate and excessive employment of the lancet in croup, like the use of tartar emetic in the same disease, is thus beset with dangers which no subsequent discretion is competent to obviate.

3. A third source of mortality in croup, is, I think, to be found in the want of a proper degree of perseverance in the use of emetic medicines, and of the auxiliary measures sometimes necessary to promote their action. It is probable that many practitioners content themselves with administering an emetic in the ordinary way; and if this fail to afford the desired relief, conclude that nothing further is to be expected from emetics, or at most, only repeat them at distant intervals. I believe that a fatal event would often ensue from a practice of this kind. As I have before remarked, it is frequently, nay, in severe cases generally to keep up an almost continual vomiting for several hours, before the breathing becomes sufficiently relieved to allow of this process being safely suspended.

Even though the practitioner should properly estimate the importance of keeping up the puking till the respiration becomes free; still he will sometimes meet with obstacles to its continuance, which I have reason to believe are not always overcome, though I have never found them insurmountable. Great quantities of emetic medicine are often required, and he may stop short of the necessary doses. Sometimes it cannot be made to operate, in whatever quantity given; and here he may fail to employ the proper adjuvants—namely, resolute and persevering irritation of the throat with a feather, with the copious and forcible administration of warm water. He may also stop short of the proper extent of vomiting, from well grounded fears of fatal prostration. The condition imposing the last difficulty, may arise from two sources—the use of tartarized antimony as the emetic, and his having previously produced too great a degree of debility by venesection.

These causes of embarrassment in the administration of emetics to children for the cure of croup, would be likely to act with great force on practitioners of sensitive feelings; especially as the violent and rapid nature of the disease, never fails to make it the subject of considerable alarm to the bystanders. By calm, resolute, and prudent perseverance in their use, accompanied by such other measures as may be particularly indicated, I am persuaded that a degree of success may be attained, far beyond what has ever yet been realized in the general practice of the profession.

It may perhaps be asked, supposing the above sources of mortality in croup to have existed, how could they so long have escaped the notice of the great body of physicians? would not the causes have been obvious to common observation? To this I reply, that I consider it a certain principle, that when *from any cause whatever*, a disease runs on to a fatal issue, the local affections will become progressively aggravated to the close, and the morbid appearances exhibited on dissection will be but little varied by any practice. Thus in croup, if we produce death from direct exhaustion by the lancet—which I presume is not very often done—the matters effused in the trachea and bronchia must remain there obstructing the respiration, the breathing will remain unrelieved, and the patient will seem to die of the disease. The appearances on dissection, will also be the same as if this had been really the case. The same would occur in case of death from any other kind of mismanagement.

It is thus impossible for us to discover in any individual case, and of consequence in any number of cases, whether death was the unavoidable result of the disease, or was caused by improper practice. The self-love natural to us all, disposes each practi

tioner to regard his own success as the greatest attainable; and presents one of the most formidable barriers to the introduction of improvements in practice—unless, indeed, they be accompanied by some brilliant theory. The control of these over the general practice of physicians, is illustrated by some remarkable example in every age. It is only by comparing, on an extended scale, the results of different modes of practice, that we can expect to arrive at any certain or safe conclusion, as to the respective merits of the various plans pursued.

That medical experience is fallacious, is an aphorism which has been current among the profession, ever since the days of Hippocrates. This is especially the case, where this experience is grounded on the treatment of diseases which would of themselves, for the most part, run a favorable course. In a disease like croup—so mortal in its nature, and so often fatal when subjected to the ordinary treatment, it may be confidently assumed that an absolutely uniform success through a series of 50 or 60 cases, and for a period of more than 10 years, leaves no room whatever for the possibility of deception. The frequent mortality of the disease, within the very same limits which have bounded my practice, altogether excludes the supposition, that the cases which I have treated, were peculiarly mild in their character. I can truly declare, that a great proportion of them seemed to be on the verge of suffocation when the treatment was commenced.

I am aware that the imputation of fallacy is often justly attached to *medical testimony*, as well as to *medical experience*. So far as the possibility of such an imputation may concern me, I have only to say, that I consider both my moral and professional reputation as staked upon the accuracy of the statement given; and that I confidently challenge the most hostile inquiry, throughout the county in which I have practised. There are certainly some, who would most willingly engage in such an investigation, if it could be conducted to a result unfavorable to my reputation.

In regard to any general arguments which may be urged against the practice here inculcated, it may be sufficient to observe, that I consider my uniform success as furnishing an ample reply to a thousand theoretical objections, from whatever quarter they may be drawn; nor can I regard the highest authorities known to the profession, as a feather in the scale against my own experience, unless they be supported by a similar success.



**ART. VI.** *Case of complete division of the trachea and esophagus, in which a cure was effected—leaving an artificial air passage.*  
By Profr. LÜDERS, of Kiel. (Translated from the German.)

WE have intimated in our fifth number, that profr. Lüders had put into our hands at Hamburg, an account of a case of wound of the trachea and esophagus, &c. We consider such cases very important, in as much as most surgical writers, even down to the present day, do not encourage us to undertake an operation, on the esophagus, in cases of the accidental lodgement of articles swallowed by accident, or from attempting to swallow improper articles. A sufficiency of cases have occurred to justify the operation—if the gullet may be cut open with a grass knife, surely the surgeon can open it.

"On the 17th of February, 1827, at 5 o'clock in the afternoon Christian Schnorr, of Kiel, a day laborer was brought into the Infirmary. A few hours before, through fear of being arrested for theft, he escaped from his dwelling, and attempted, at a short distance from the town, to cut his throat, by means of a crooked knife, called a garden knife. He was found there, lying on his belly, with his head resting on both arms; he was taken up, and brought to the infirmary.

He was a man of about 37 years of age, of athletic constitution, possessing a strong muscular frame, and enjoying heretofore uninterrupted good health. The wound which the unfortunate man had given himself, ran obliquely across the fore part of the neck, of about 6 inches in length, and gaping about 3 inches in breadth; the edges and corners of the wound showing that, the knife had been applied to it several times. He had cut through the trachea, between the first and second rings, and the esophagus, even to the vertebræ, in an oblique direction; yet, strange as it may seem, he had not injured the large blood vessels, or the nerves of the neck; the muscles of the superior part of the neck were the greatest sufferers, though the sternocleido mastoidei muscles were only cut into on their upper surfaces; and so deep a wound of the middle part of the neck could only be accounted for, from the employment of the pointed sickle-shaped knife, which, the man, as he confessed to me afterwards, introduced deep in the side of the trachea, below both canals, and cutting rather from behind outwardly than inwardly.

From the nature of the wound, appearances were on the first evening very unfavorable. He was pale and speechless, and if he lay on his belly, the best posture to breathe, there was a free flow of blood from the wound externally. In the upright posture the blood flowed into the trachea, causing dyspnea with a

short, rattling respiration, and a violent convulsive cough, which almost suffocated him; so that, when an attempt was made to raise him up, to examine the wound more closely, suffocation would come on, and he would push away all assistance, and throw himself with impetuosity upon his belly. In this situation he remained all night, and though I saw that the wound would not be immediately fatal, I prognosticated, so soon as I was convinced of the total division of the esophagus, a lingering death by hunger, as I regarded such a wound of both canals as incurable. I endeavored by means of a pliant gum elastic tube, which I introduced into the lower portion of the esophagus, to inject lukewarm milk: but so violent a retching with interruption of free breathing was excited, that I desisted, and contented myself with injecting, from time to time, warm milk through the mouth, (as the patient gave us to understand that he was suffering from thirst) which, however, would run out in a stream from the external wound: a part would also run into the open end of the windpipe, causing a violent cough, yet by moistening the mouth, and the hole in the throat, the tormenting thirst was allayed. Besides this a slice of lemon, covered with sugar, was laid on his tongue occasionally, through the night, and to compose the general system, a glyster composed of 45 drops of *Tinct. Thebaic.*, and a half cup of oaten gruel were administered.

February 18.—In the morning, I found the condition of the patient much altered. He had not slept, and occasionally in the convulsive fits, much clotted blood mixed with slimy matter was thrown off, by violent convulsive coughing; yet, the difficulty of breathing, caused by the engorgement of the bronchia, and the rattling in the throat had disappeared. I found the patient in bed, lying on his back, and in a condition to raise himself up, without bringing on the cough. My intention was now this—to draw together, by stitches, the ends of the trachea; and to hold down the head upon the breast, by means of a bandage. I did not expect difficulties from this kind of procedure, and the only care was, that the ends of the esophagus might so unite, as to prevent the passage of the food; still it was to be hoped, that if this difficulty did occur, it might be obviated by the introduction of an elastic tube into the stomach, so that the life of the patient would at least be prolonged. In order to effect the union of the trachea, a strong thread was passed, by means of a crooked needle, through the lower portion of the trachea, which had sunk down to the edge of the sternum, and to draw it up into contact with the superior portion. But in making the endeavor to unite both ends, there was such convulsive coughing and suffocation, that the patient became livid in the face, and placed his hands quickly on his neck, till the ends of the trachea were separated,

so that he could breathe freely through the wound. At first I suspected that these things were affected by the patient, in order thereby to prevent the healing of the wound and the saving of his life: but the *tedium vitæ*, was in our patient, (as I have often seen, where self-murder has been frustrated,) entirely removed, and he gave us to understand, that he was willing to be saved, and that he repented greatly what he had done.\* And I could only account for the Orthopnea, caused by the closing up of the external wound, by supposing a paralysis of the superior portion of the trachea, and the top of the throat, probably caused by the wounding of the nerves going to those parts, (*Recurrens vagi*) by which respiration was impeded. On the following day, an attempt at drawing the parts together, was followed by the same consequences, and I desisted from the undertaking; but still suffered the thread to remain in the inferior portion of the trachea, in order that I might be able to draw it upward, and I was satisfied with keeping the head down upon the breast, after I had cleaned the wound of slime and blood. There was, on the following day a considerable discharge of bloody slime from the wound: yet the pulse was strong and full, and there was but little fever. Towards evening, the patient informed us that he was hungry, and I ordered a tube to be made, shaped like the letter S, with a funnel-like opening, and a horn knob on the other end, so as to introduce liquid food by way of the external wound. For heretofore, I could only allay the sensation of hunger by glysters, with the addition of opium.

February 19th.—The patient, though troubled with cough, had a few hours sleep, and found himself tolerably well, excepting the tormenting sensation of thirst: he was free of fever. About a cup full of milk, with the yolk of an egg, was given to him through the tin tube, which I introduced into the external wound. Yet not without some portion of it running into the trachea, and causing retching and coughing. The hunger was in some measure allayed by this, and the thirst lessened, which the patient also assuaged, somewhat, by taking milk into his mouth, and permitting it to run out again by the wound—thus affording an argument, much to the establishment of the opinion, that thirst has its chief seat in the mouth and esophagus. A renewed attempt at uniting the trachea was again unsuccessful. Towards evening as the patient complained of colic, and as he had had no passage for 3 days, he was relieved of this by a glyster.

20th.—The patient has slept better, and finds himself tolerably well. The respiration is freer, and he remarked when he sucked

\* Einen ähnlichen Fall, der im hiesigen clinischen chirurgisch-ärztlichen Institute der universität vorkam, findet man in dem Berichte über das letztere vom Jahre 1819. Berlin 1820: bei G. Reimer.

the milk into his mouth, that something went to his stomach, if he pressed his head close to his breast. The whole wound is covered over with a thin gummy lymph, without either inflammation or suppuration. Herr Professor Ritter, and Herr Stein, of Fridrichsort, who, saw the patient were convinced of the introduction of the pewter tube into the lower portion of the esophagus, also of its complete division: but the attempt, which the latter made to bring the trachea together, was as unsuccessful as the former attempts, and excited a fit of suffocation.

21st.—The ability to suck still continued perfect. The anterior surface of the vertebra, where it lay naked, was covered with lymph, the edges of the lower opening of the esophagus, were also covered by an exudation: the external wound became smaller, quite perceptibly. The patient took a small cup of milk, in which was boiled barley-flour, most of which when sucked by the mouth, passed down into the stomach. The closure of the throat which belonged to the upper portion, seized on the lower, after the food had passed through the gap, by reason of its gravity. The introduction of the tube and of nourishment through it, always excites a violent retching and coughing, (a not unimportant physiological fact). The sound of the cough to day was hoarse, and the respiration somewhat whizzing. The pulse was more contracted, smaller, though not more frequent. A strong purgative glyster did not operate.

22d.—The preceding night was passed badly; there were great restlessness, and a violent hoarse cough, attended with a pus-like slimy discharge from the wound; the respiration very short, whizzing and quick; the countenance had an expression of anxiety, and the face was covered with perspiration: the wound though it looked well, was covered with a clammy lymph. Notwithstanding that these symptoms resembled bronchitis; the exhaustion of the patient by loss of blood, and the withdrawal of nourishment, and particularly the condition of the pulse, which was changeable, sometimes full and hard, again small and weak, caused me to imagine it was more of a spasmodic affection. I ordered, for the patient, lukewarm water, by way of drink; and, a glyster to open his bowels, and after its operation, an opiate glyster, and a strong mustard plaster to be applied to the breast, and the patient, immediately to be immersed in a warm bath.

23d.—All the symptoms appeared to be mitigated. The patient lay in a copious general perspiration, which had the odor of sour milk. The urine was clear, but of a whey color, and had the smell of sour whey: and both these appearances of the perspiration and urine, continued so long as the patient lived entirely on milk. The Blennorrhœ of the bronchia continued, and

the patient having occasion to bring up much slime, this always caused the wound to bleed. The ability of sucking through the mouth was now increased, and there appeared to be forming an anterior wall in the esophagus, as if it was about to unite both ends. The tube was now no longer introduced, that this process might not be impeded. Towards evening there were violent symptoms of suffocation, such as the patient had had before. A mustard plaster was again applied; and a purging glyster administered. These symptoms returned from time to time.

27th.—The fits of coughing were remarkably milder and shorter. On this day, the patient eat a meal of bread, of which a small part escaped through the wound, yet not without bringing on a bleeding, and exciting cough. In the esophagus an opening could no longer be discovered, so that nature had accomplished, what art had attempted in vain. The under end of the trachea had drawn itself up in a wonderful manner, and stood about an inch from the upper end, at the same time parallel with the inferior edge of the wound in the skin. By this time the diminished irritability of the organs of respiration, if there had been no paralysis of the superior wounded parts, might have permitted the union of both ends by means of the sutures, if it had not been prevented by the unfitness for reunion of the substance of the esophagus, which was torn apart by the drawing up, and tearing of the trachea, and thus the most difficult part of the cure intermitted. The healing process was now assisted, by the gap in the trachea being closed up, by newly formed substance. The chief difficulty at this time, was the prevention of the granulation from becoming too luxuriant, and the closing up, and obstructing the lumen of the trachea. In order to prevent this, if possible, I resolved to have recourse to abstinence, which the patient was compelled to bear heretofore, and to which I ascribed the happy union of the esophagus, the restoration of the substance without suppuration; and now, with the same intention in view, I put the patient upon the most simple diet, namely, milk, as it was found absolutely necessary for the preservation of his life, and the proper healing of the wound. The patient therefore, kept for 14 days on milk alone, or with the yolk of an egg; and sometimes by way of change, broth with rice or sago for nourishment. With this diet the pulse, (as is usual in the dietetic treatment) sunk about 40 beats, the cough seldom appeared, the wound gradually grew smaller, continuing to be covered with a clammy, clear, yellowish lymph. Evacuations of the bowels were had every 5 or 6 days, by means of glysters; and, yet, the strength of the patient continued such, that he could sit up in, and out of his bed, though he could not stand without assistance.

March 6th.—The posterior wall, and the side walls of the trachea were perfectly formed, but still the patient was not in a condition, when the external opening was closed, to speak or respire, either by the mouth or the nose; a fit of suffocation came on, a few minutes after the closure, which made it necessary that it should be left open. This condition of things did not arise from a mechanical closure of the larynx or glottis, which was evinced by an examination of these parts, by means of a catheter, introduced into the wound, which showed that the upper part of the respiratory tube was perfectly free. I believed, therefore, that this disability must be ascribed, either to a paralysis of the larynx, arising from injury of nerves going to it, or the suspension of the function of this part. Nevertheless, I resolved, so long as the gradual healing of the external wound did not interfere with the respiration; and the lumen of the trachea remained free of granulations, to continue the union of the external wound, which was now a circular opening of about  $\frac{1}{4}$  of an inch in diameter.

12th. The patient could, at times, draw in air and blow it out again through his nose. But, on this day, he was suddenly attacked with a suffocation, attended with a peculiar, whizzing respiration, and a difficulty in throwing off a frothy slime mixed with blood; and, this condition of things seemed to arise, (as the examination of the wound evinced,) as a consequence of the lumen of the under end of the trachea being nearly closed up with granulations, so that the air could scarcely force its way through. By pressing aside these granulations, by means of a sound, free respiration was again obtained, and by touching them with lapis infernalis, they disappeared, so that the respiration remained free.

15th. The patient was in the same condition as on the 12th; while the granulations were pressed down and cut away. But now it appeared necessary, partly for the sake of keeping open the respiratory tube, partly to circumscribe the granulations at the edges of the trachea, and the whole surface of the wound, to introduce a leaden tube into the trachea; by which I had hopes, that when consolidation could be effected of the surface of the wound, and particularly of the edges of the trachea, I should be able, finally, to close up the opening, either by scarifications, and by drawing together the external lips of the wound; or by covering it with a piece of skin of the neck.

17th. A round leaden tube, made in the form of a segment of a circle,  $\frac{3}{4}$  inches in length with a plate placed at the upper edge, in order that it might be fastened externally upon the skin; and of such a thickness as accurately to fit the calibre of the trachea, was introduced through the wound into the lower portion of the trachea; and, immediately, the respiration, previously much

obstructed, went on, without exciting any remarkable irritation, pain, or cough. This tube was worn many weeks, uninterruptedly, except when it got out of its proper situation. The patient gradually took food of a more solid and nourishing nature, as the condition of his strength made it necessary. The external wound now formed a round opening, barely sufficient for the tube to pass in and out, so that the irritation which existed, rendered it daily more necessary to cleanse by taking out the tube. Fourteen days after the introduction of the tube, the under opening of the upper end of the trachea and larynx was yet open, and the patient without the tube, could breathe through his nose; wherefore the tube was taken away and another attempt was made to heal the external wound. But four days after this attempt, granulations arose so abundantly in the parts, as almost to close the lumen of the trachea; and produced fits of suffocation, so that it was necessary to introduce the tube again. But, I first cut in that part of the tube, which lay opposite the lower opening of the larynx, when fixed in the trachea, a circular aperture, in order to enable the patient at least to respire through the nose; and, perhaps afford him again, the ability to speak; and, truly, we enjoyed that pleasure.

5th April. If the patient applied a finger to the external aperture of the leaden tube, he could not breathe perfectly by the nose, but he could speak, though in a husky and deep tone, but so as to be intelligible: this induced us to hope for a perfect cure. But the attempt which was again made, to establish the regular respiration, and to lay aside the tube, failed—a stopper of cork was introduced into the opening, but the patient could not bear it more than a few hours at most; the accumulation of phlegm plagued him, as he could not discharge it through the glottis; and a dyspnea which occurred, became intolerable, so that it was necessary to withdraw the cork, and suffer him to breathe through the opening. This secretion of phlegm, frustrated every endeavor to dispense with the tube, and heal the wound. It excited a constant excoriation of the internal surface of the wound, and gave rise to new granulations: it also made the external part of the neck, and the cicatrix around the aperture sore, when the tube was not worn; and when the tube was stopped, it was necessary to withdraw and clean it, at which time the wound was also cleaned. As every attempt at restoring the natural passage of respiration, appeared impracticable, it was thought, that the frequent withdrawal of the tube, for the purpose of cleaning it, would do no injury to the wound, and would possibly render more tolerable the peculiar affliction of the patient. The leaden tube, after trial, was found not to answer, as it incommoded the patient by its weight, and in consequence of the moisture

of the parts, it oxydized, and became rough, irritating the surface of the wound. In order to remedy this, a silver tube was substituted, through which there was passed a second tube, also made of silver. This inner tube was withdrawn as often as it was found necessary to clean it, while the other one remained. The plate which was fastened to the external tube, was perforated with four holes, and by means of the same an elastic band, which went around the neck, was fastened to it. Over this apparatus, the patient wore a piece of gauze, to prevent the ingress of foreign bodies into the trachea, and the whole was completely covered with a loose neck-cloth. The patient was now almost as sound and strong as he was before his attempt at suicide.

On the 27th April, the patient was taken from the infirmary to the town prison; from which in the summer of the same year, he was sent to the house of correction, on account of the theft which he had committed, where he is to be detained 8 years. He finds himself still well, (Jan. 1829,) and suffers only at times cough and bleeding from the opening, both of which appear to be the consequence of dust, to which he is constantly exposed during the day.

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PAREUS, saw a man, assassinated with a dagger, in whom the trachea and esophagus were so completely cut through, that the latter had sunk down so far, that it could not easily be taken hold of. Although the wound was fastened together, and the external wound carefully united, the patient died on the fourth day after the injury; but he retained the power of speech well enough to name his murderer, (Par. l. q. c. 29). This narration affords us an example, that a complete division of both canals, without injury of the large vessels of the neck, is at least not certainly mortal.

PLACENTIUS, (Chir. l. 20,) relates a case of cotemporary injury of the trachea and esophagus in an attempt at suicide, without injury of the jugular veins, which healed up in a month. (Obs. med. rar. auct. Jo. Schenkio a Grafenberg. Francof. 1600, l. 2. p. 247.

JOH. HELWIG, mentions a similar case, where the patient lived ten days after the injury. (Jo. Helwig obs. phys. med. ed. Schrœckio aug. vind. 1680. obs. 63. p. 210.)

PUERNAM, describes (Math. Godofr. Purmanni curiosa chir. obs. Francof. etc. Lips. 1710. Obs. 16. p. 73,) a punctured wound, which hit, in addition to the jugular vein, the trachea and esophagus, and penetrated obliquely through the neck. After he had tried in vain to suppress the bleeding by other methods, he was obliged to apply pressure to the vein, and then cured the



wound of the trachea and esophagus in four, and the whole wound of the neck, in twelve weeks.

A similar case he describes in his "*Lorbeerenzweig der Wund-  
arzneikunst*:" which he also cured. (Frankfurt und Leipzig,  
1705.)

STARCK relates a successful case, of a wound of the external jugular vein, by which the epiglottis was completely cut away, and the upper part of the esophagus cut through with the exception of about an inch in breadth of the posterior wall. The wound of the esophagus and trachea was approximated, which gave rise to violent vomiting and coughing. The latter tore away afterwards the suture. The patient was supported with nourishing glysters. Injections into the esophagus excited convulsive vomiting. It was found necessary on the following day, to take away again the renewed sutures. The chin was fastened down upon the breast, and every thing was left to nature. On the 24th day after the injury, the patient ate rice broth, a small portion only of which came through the wound. Towards the end of the 6th week, the external wound was healed excepting a fistula in the trachea, through which air passed in and out.—Eight weeks after his restoration, he died from inebriation. Besides the cicatrix, there was no trace of the injury discovered in the dissection. Of the fistula in the trachea, nothing is said.—(Starck in med. and philos. comment. of a soc. &c. Edinb. vol. 4. Richter's chir. bibl. b. v. p. 75.)

The army surgeon, DEBRUCK, cured a man, who with a razor made a wound of about  $3\frac{1}{2}$  inches long, in the neck, under the os hyoides, wounding also a  $\frac{1}{2}$  inch of the anterior wall of the trachea. By the use of the suture and bandage he was restored in four weeks. (Mursinna, I. f. ch. and I. 2. p. 373.)

D. KURTZWIG, describes the cure of a similar wound, which cut through the larynx immediately above the thyroid cartilage, and the throat opened an inch in breadth, by which on both sides the jugular veins appeared to be completely divided. The surgeon fastened the head by means of a bandage upon the breast, and restored the patient in 12 weeks. (Lodov. I. II. 4. p. 725.)

MURSINNA treated a boy, whose trachea (and esophagus, but how much of the latter is not stated,) was cut about an inch under the cricoid cartilage. The wet suture was employed, (but whether through the muscles of the neck, or through the trachea and esophagus is not with clearness stated,) and the head fastened down upon the breast. After the dressing, the patient sucked some oatmeal broth, without any portion of it coming through the wound. But afterwards much of the drink flowed through it. Convulsive coughing was the first day the worst symptom.—

The cure was, notwithstanding the patient kept the wound in the esophagus open from eating, so far effected, that on the 19th day, the wound of the trachea and the external parts was skinned over, except a small aperture which still communicated with the esophagus. The latter, however, healed, by the daily use of the lapis infernalis, and in the course of two months, the patient was perfectly restored. (*Neue Med. Chir. Beob. Berl.* 1796. p. 225.

Lastly, Rust, in his own journal, (*Observations on wounds of the trachea, and esophagus, with remarks in relation to their treatment and their proportionate mortality; by J. N. Rust, Wien.* 1815,) furnishes three cases of this kind. The first is a case of a complete division of the larynx, between the thyroid and cricoid cartilages, in conjunction with a division of the anterior wall of the esophagus. The wound was united by sutures, and the patient supported with nourishing glysters, and for the mitigation of his thirst, warm baths were resorted to—but on the 3d day, he was able to suck in some measure. On the 9th day, the stitches were drawn out, and on the 30th, the aperture was healed; yet during the treatment symptoms of inflammation frequently made their appearance in the trachea, besides it was necessary to keep open a small abscess under the wound. There remained no obstruction to swallowing, and the suppuration in the larynx, and hectic fever, disappeared in the lapse of three weeks.

In the next case, the wound had penetrated through the larynx, cutting into the anterior wall of the esophagus, lying opposite. The treatment was similar to that in the first case. Bloodletting was found necessary twice, and an abscess was formed beneath the cicatrix; but the patient was restored in seven weeks. The third case resembled that reported by myself; as here the trachea and the upper part of the esophagus were completely divided even down to the vertebræ, though without injury of the great vessels of the neck. This patient was about from 24 to 36 hours, before his situation was discovered, and brought into the hospital. Prof. Rust is of the opinion, that an energetic antiphlogistic plan of treatment, might have saved him.

These are all the cases reported by others known to me, of wounds of the trachea and esophagus. Both the cases of complete division of both canals, one reported by Ambr. Parè, the other by Rust, terminated fatally, yet there was enough to convince us that they were not absolutely and immediately mortal, for in the first case, death did not occur till the fourth day, in the other till the eleventh." [We could adduce several other cases, but shall defer for the present, what we may think proper to communicate hereafter.]

ART. VII. *Notice of cases of hemorrhagic lusus, or disposition to hemorrhage, with some remarks.*

Medical writers have so long made use of the terms physiology and pathology, and have rendered them so familiar to the ear of the physician, that we are ready to conceit that we clearly understand the import of these terms; and, that we can readily separate the one from the other, in a general sense. This is certainly true to a certain extent, but by a closer scrutiny into the long catalogue of phenomena, in the healthy and unhealthy body, we will see many instances, where we cannot clearly discern the one from the other, nor give "a name and a fixed habitation" to either. Among such instances, perhaps, there are none wearing stronger features of obscurity, than cases of hereditary, family, or individual, hemorrhage, under circumstances which do not attend one person in several hundred thousands.

Thus, in a physiological view, we believe that the human body is endowed with a circulatory apparatus, a part of which is a capillary circulation; that these capillary vessels, by which the ultimate circulation of the blood is effected, are derived from vessels of greater magnitude. That the blood has plastic properties, and a power of coagulation. We need not here stop, to point out the mutual dependence of these structures with the nerves, membranes, &c. since we wish to confine our remarks rather to the visible organs, and visible phenomena, connected with the circulation. This view of the subject, we think, will serve to illustrate the reflections which we mean to offer, on the physiology and pathology, connected with the subject of hemorrhagic lusus.

If, then, we see a healthy limb, for instance, maintaining its vitality, by this plastic and coagulable blood being driven by the heart, and arteries of a certain order, into the capillary arteries, we seem to have a clear glimpse of the phenomena, by which the business of assimilation is effected: thus, old particles are carried away, and new ones deposited in their place. So far, we have pretty clear views of physiology.

When we see a wound made into a limb, so provided with a renewing and sustaining apparatus, we see the blood pouring out from thousands of cut vessels; and death would be the inevitable consequence, if nature was not provided with a conservative power. The healthy phenomena being here deranged, a new state of things must be induced: the new order of phenomena, we denominate *pathology*. These phenomena may be divided into direct, and indirect: there being a breach of continuity in thousands of vessels and fibres; and especially, there

being a multitude of open tubes, which are associated with the heart's action, in keeping up a constant circulation; and there being necessarily, a considerable degree of pressure on those open vessels, there must be some means by which all the small vessels are enabled to close, and resist the propelling power of the blood behind; these we call the direct powers, connected with this part of pathology. Presently, we observe pain, swelling, redness, &c. &c., the usual phenomena, or signs, attending inflammation. These signs are said by most physicians, to be salutary, and of course necessary. These we term the secondary phenomena, which, if not essential, are in all, except extremely slight cases, inseparable from wounds of animal bodies.

We by no means intend to examine this subject in extenso, and shall, therefore, with all possible brevity, endeavor to show why it is that the division of the smaller blood vessels does not lead to fatal hæmorrhage. It is well known by actual observation, as well by experiments upon brute animals, as in the surgical examination of wounds in the human body, that the vessels, especially the arteries, retract and contract: by their retraction, they draw the cut ends, as it were, into a sheath, and are now surrounded by adjacent membranes, &c. then the blood or its lymph, having coagulable properties, and being detained at the ends of the vessels, serve as obturadores. The cut vessels, we know from actual observation, contract at their ends when cut; and the process of closing, arising from this source, is assisted by the mechanical pressure arising from the presence of coagulated lymph and blood upon the sides and ends of the cut vessels.

We believe, that much importance has been attached to the property of coagulation in the blood, as a mean of arresting hæmorrhage, by Mr. J. Hunter, doctor Jones, and others; and there can be little doubt, but that this is a most important item in the assemblage of phenomena concerned in stopping hæmorrhage; but we are strongly inclined to the opinion, that in the cases under consideration, the property of coagulation is not absent: here then, we arrive at the question, what are the peculiar pathological circumstances which give rise to the difficulty in view?

We shall show hereafter, that in one important case, which came under the notice of the present writer, the blood possessed the property of coagulation in a high degree; we shall also detail other cases where the same fact was observed. The main pathological fact, we think, is a want of retraction and contraction of the arteries—but several points of inquiry present themselves here. Is the defect of contraction, which we suppose to be the main defect, owing to defect of nervous energy, or is it owing to mere want of elasticity? This is a question which we

are by no means prepared to answer. Another question may be made, whether, as regards the capillary arteries, (and perhaps the veins are concerned also,) something more may not be necessary than the mere quality of coagulation? These vessels, we suppose, are principally influenced by the lymph of the blood—and we imagine that this lymph may, by its plastic qualities, causing it to adhere to congenial surfaces, close the vessels, or, it at first may act as a mere mechanical glue, and is then but imperfectly associated with the cut ends of the vessels.

We believe, the commonly received opinion is, that the lymph, in the first instance, acts by its mechanical adhesion; but we think it cannot be doubted, that eventual security and reparation depend upon the plastic properties of the lymph. It will follow, then, that the blood may possess its usual proportion of lymph, this lymph may have its genuine properties, and still afford but a temporary security, for want of the proper energies or appetites of the nerves, to enter into union with the lymph; the union being imperfect, in more or less time, the dead lymph is thrown off, and consequently, hemorrhage will now take place.

But if we attempt to push this inquiry further, we shall see many surrounding difficulties. If the defect be in the nervous energies, the nerves may be in a state of excess of excitement, or they may be in the opposite state.

There has been so little of this disease, that it has excited but little attention, nor are we prepared to offer any thing satisfactory; we shall, therefore, terminate our remarks, and proceed to the detail of a few cases, which we deem sufficient to entitle this subject to notice.

It appears, that in some of the cases of hemorrhagic lusus, that neither astringents, styptics, compression, nor the actual cautery, could restrain it. Indeed compression sometimes seemed only to increase the flow of blood, and was attended with much pain, indicating an increased flow of blood to the part.—This fact would lead one to suspect, that something like an erectile action takes place in the vessels divided, by which they are not only prevented from collapsing, but the vessels next adjacent push on the blood with an increased impetus. Something of this kind has been observed, by professor Dudley, to arise from pressure in many cases, of surgical or other wounds; and the present writer has long noticed a similar occurrence, and has noticed the fact in a former essay on the subject of hemorrhage.

When we bring to view the fact, that the blood sometimes passes by the exhalants through the skin, from the surface of the various membranes, as those of the eye, ear, intestines, nose, &c. we are led to conclude, that there is an increased action, of

the vessels in fault, attended with an enlargement of their lumen, and that this is most likely the nature of hemorrhagic lusus. If we are right in this conjecture, we might apply warm water, and debilitating narcotics, as belladonna, henbane, tobacco, &c. with a view of relaxing. To conclude, we have a sanguine hope that it will be found, that immersion of the part in warm water, or, where that cannot be done, applying the warm water, by means of cloths wrung out of it, is the remedy for this disease. No mischief can arise from a trial of it; we know of no remedy, if this does not succeed.

We shall now proceed to give the substance of some cases which are to be seen in Coxe's Museum, vol. 1, p. 284.

Case 1, Was communicated to doctor Rush, by doctor E. H. Smith of N. York, April, 1794. A child eleven months of age, ruptured the frænum of the upper lip, by a fall: bleeding continued about three weeks, and then ceased spontaneously. When nearly two years of age, it bursted a vessel in the nose from coughing. Cold applications did not stop it; the nose was plugged, but the hemorrhage continued four days, and then ceased of itself. Before the completion of its third year, the child trod upon a knife, the wound scarcely *skin deep*. The wound bled all night, in the morning a physician was called in, but could not stop the bleeding. Many things were tried ineffectually: a piece of bladder was glued on; lapis infernalis was applied four times in one day.—Several physicians were now called in—the skill of all was baffled. At length, the bleeding was arrested by applying some astringent earthy powder.

A little before the end of his third year, he was accidentally wounded by an axe, which nearly cut off one of his toes. A physician being called in, again applied the astringent powder; this failing, many other applications were made. The child continued to bleed, until the blood seemed quite serous, and the child died of the bleeding, a few days before it had completed its fourth year.

We are told by doctor Coxe, that doctor Otto has given "a very interesting account, in the 6th vol. of the N. York Medical Repository, of an hemorrhagic disposition existing in certain families." We are sorry that, at this moment, we have not access to this vol. of the Repository; but doctor Otto has obtained the following cases, which are to be seen in Coxe's Medical Museum, for 1805.

Agreeably to letters which doctor Otto obtained from Mr. John Coats, and Mr. Coats from Mr. Binny, the following facts were disclosed:—"All the male children of B. Binny, of the Eastern shore of Maryland, died of hemorrhage from small wounds. The

following letter, however, so briefly details the misfortunes in Mr. Binny's family, that we have thought proper to quote it entire.

Dear sir,—I have made inquiry respecting the loss of three of the sons of Benj. Binny, deceased. The first died with the loss of blood, which was occasioned by the kick of a colt, over the eye-brow. The second was lost by a blister being raised on the fore-finger, from the fall of a brick from a negro child, when they were at play. The third was cut over the eye, by the swing of a gate, as he was passing through. Physicians attended each of them, but to no purpose; as all their skill could not stop the blood. A fourth was very subject to bleed at the nose, though he did not die of the same, (Charles Binny).

Doctor Coxe also collected the following cases from English publications:—A strange kind of bleeding in a little child, by Mr. Samuel du Gard. "A child about a quarter of a year old, was taken with a bleeding at the nose and ears, and at the hinder part of the head, where there was nothing at all of any sore; this lasted for three days, at the end of which, the nose and ears ceased bleeding: but still blood came, as it were sweat, from the head. Three days before the death of the child, (which was the sixth day since she began to bleed,) the blood came more violently from the head, and streamed out to some distance from it; nor did she only bleed there, but upon her shoulders and at the waist, in such quantities, that the linen next her might be wrung, it was so wet; and every day required clean linen. She for three days bled also at the toes, at the bend of her arms, at the joints of her fingers of each hand, and at the fingers' ends; and in such measure, that in one quarter of an hour, the mother had caught from the droppings of the fingers, almost so much as the hollow of her hand would hold. All the time of this bleeding, the child never cried vehemently, but only groaned; though about three weeks before, it had such a violent fit of crying, as the mother said she never heard. After the child was dead, there appeared in those places where the blood came, little holes like the prickings of a needle.

"The mother said, that the blood was not thin, like water, but of that thickness as blood usually is; and that she and others believed there was little or no blood left in the body of the child."

[*Lowthop's Abridgment* vol. 3, page 247.]

"In the same place, we have an account of the periodical evacuation of blood, at the end of the fore-finger, in an innkeeper, which continued twelve years, he seldom having a respite of two months, and the fits never returning oftener than in three weeks. He rarely bled less than a pottle (half a gallon) at a time: any attempt to staunch the blood, raised most exquisite tortures in the arm. No remedies proved effectual. It generally

continued for twenty-four hours, till he fainted away, when it stopped of itself, and his pains left him. Towards his latter end, he bled but little, and that too but like diluted water. It carried him off. [*Ibid. Related by Mr. Ash.*]

"Another case, by doctor Clopt. Havers, is given of a woman, who had an eruption of blood out of the glandula lachrymalis of one eye, without any external injury. She bled three pounds within the space of thirty hours. About a week after, the same sluice was opened again, and she bled till she died. [*Ibid.*]

We could collect many other cases which occurred in this country and elsewhere, but shall content ourselves by bringing to notice the following case, from the records of the Royal Medical Society at Copenhagen; and a case which fell under the notice of the present writer a few weeks ago.

There seems to be a necessity for warning the tyro, or young reader from confounding the phenomena under consideration, with hemorrhage as a consequence of malignant fever. We have already remarked that, in our case we found the blood possessing its usual strength or proportion of crassamentum; and it has been remarked, in one of the cases already noticed, that "the blood was not thin like water, but of that thickness as blood usually is;" whereas we know, that in malignant fever, there is a thin deteriorated state of the blood: and as we see most forms of diseased action partaking of an atonic and entonic condition, so here, we think it quite probable, that while hemorrhage in malignant fever, is attended with a state of atony of the capillary vessels; on the contrary, in hemorrhagic lusus these vessels are in the entonic state.

The following observations on hereditary disposition to hemorrhage from slight wounds, have been communicated, by R. S. Thal, to the Royal Med. Society of Copenhagen, and published in their transactions. Translated from the Latin, for this Journal.

There sometimes happen cases of surgical operations, of a light character in themselves, which become important and troublesome, from hemorrhage, causing a great loss of blood; a singularity which appears congenital, perhaps hereditary. I have it in my power to relate a case: the *diary* affording me that of Guldbrand Olsen, who was received into our hospital, Nov. 7, 1827.

The patient, a tailor, of the town of Holbeck, was a firm and robust man, of a leucophlegmatico-cachectic habit. At the first view of him, I observed a singular rotundity of form, chiefly remarkable about the ankles, and the articulations of the hands; appearing to be a peculiar fulness of the cellular structure, adhering to the skin, very different from fatness or edema.



The patient had a tumor of the scrotum, caused by urinary infiltration, which at length found its way through many fistulous openings in the perineum; two of the larger of which, at the time of his admission into our infirmary, afforded transit to the greater part of the urine, while the orifice of the urethra was almost altogether closed; the prepuce being indurated, and terminating by a long beak, of about a thumb and a half's breadth, having so small an aperture, that the most slender probe could scarcely be passed through it; and, the urine emitted only drop by drop. During the discharge of the urine, it was plainly observable, that the water infiltrated itself into little cells, between the aponeurosis covering the corpora cavernosa, and the common integuments. Whether the first seat of the infiltration was the apex of the prepuce or the scrotum, I cannot say with certainty; but the former appears the least likely to me; because during the progress of the disease, I observed neither rupture nor ulcer of the prepuce, unless its seat might have been near the frenum, and had vanished by the incision.

Circumcision was performed in a proper manner; (on the 8th Nov.) a small artery on the left side of the frenum, and another on the margin of the prepuce, which I now found separated from the corpora cavernosa, being tied, hemorrhage was easily suppressed, by a bit of agaric, and a suitable bandage. The operation was performed about 9 o'clock, A. M. Twelve hours afterwards, a most violent secondary hemorrhage came on, such as I had never seen from a small wound; for the blood did not flow from a single artery, but from the whole surface of the wound; so that both groins, the abdomen, and the interstice between the thighs and nates were covered with a great mass of coagulated blood. The pulse of the patient remained but little affected, and he unalarmed, his countenance being perfectly quiet and composed. "Now," said he, "the bleeding will continue as long as there is a single drop of blood in me, then, the wound being freed from putrefaction, I shall get well." He related some other matters to me, which I shall shortly communicate to our most learned society. From this I conjectured, that, very powerful remedies should be applied in this case. Burnt alum, with the sulphate of zinc, and the actual cautery, were tried in the first place, but without any effect. A piece of flexible catheter was introduced into the urethra, and compression applied, together with an application of the fungus quercinus, which seemed to afford the desired effect; perhaps on account of the patient becoming reduced in temperature from the loss of much blood, from being washed with very cold water, and from the genitals being exposed for a long time to the air. About

nine o'clock of the same day in the evening, hæmorrhage began afresh, which was sufficiently easily stopped by local compression; but in the place of the fungus quercinus, I applied the white of eggs and colophonium, to the member, in round cakes. I was persuaded that the blood flowed more slowly after these applications, as it appeared on the following day, about ten o'clock, A. M. for the blood ran under the fascia, at the root of the penis, till at length a cavity was formed, containing about two ounces of pus; but still the catheter passed in through the fasciæ.

The patient complained of pain in his breast, and as he threw up much mucus in coughing, mineral acids were given; but, afterwards, on account of the quantity of blood lost, I thought no attention need be paid to that affection. But neither the acidum vitrioli, nor the oleum martis afforded any good purpose in stopping the hæmorrhage, as will be seen in the sequel; the oleum martis produced nausea and vomiting. A part of the urine was passed by the urethra, causing a renewal of the hæmorrhage, a part by the fistulæ of the perineum. In the commencement, an antiphlogistic diet was employed, but in the course of the disease, it was made more nutritious.

The hæmorrhage which had occurred twelve times, decreased, however, gradually in quantity, (9th Nov. to 9th Dec.) when the prepuce, as far as the root of the penis, where the large and indurated cicatrix was, being affected by sphacelus, separated by suppuration. The ulcer being consolidated by a prolongation of the skin from the scrotum, the urine was passed by the natural way, there being no obstruction. The scrotal sack softened, and diminished to one half, the testicles became perceptible to the finger. Hæmorrhage being frequent, and, much blood being lost, particularly at first, the patient was so much debilitated that he could scarcely raise himself. His face and whole body appeared pale, and there was some edema of the feet. The ulcer, however, as he had predicted, healed up with a spare suppuration; and when the fistula was closed up, he was restored by a nutritious diet, so that he left our establishment, (on the 7th Jan. 1826,) perfectly cured.

The facts which follow concerning the mode of life, and his diseases, were related to me by Guldbrand Olsen, in nearly the following words. He was born May 24th, 1794, at a village near Christiana, where, when very young he lost his father; but he knew nothing worthy of remembrance, in reference to the constitutions, or the cause of death either of his father or his mother. He was the youngest of four sons, two of whom, like himself, labored under a disposition to preternatural hæmorrhage; but he alone, was afflicted from infancy, with a difficulty in passing his urine. Both of his brothers died prematurely; he doubted

whether hemorrhage was the cause. He first perceived this disposition when twelve years of age: for about that time he accidentally wounded the middle finger of his left hand about the nail; and the bleeding lasted eight days, when he fainted; but suppuration occurring, attended with a cadaverous fœtor, it ceased of its own accord. But, before and afterwards, he was often afflicted with frequent and obstinate epistaxis, yet, it was suppressed by the usual remedies.

A few years having elapsed, he had a swelling with much discoloration on his head, caused by a blow from a pole. The tumor was black and tense, when, after a few days it broke, and there was hemorrhage daily; at first slight, but it lasted till it exhausted him exceedingly. The ulcer, however, soon healed. In the year 1807, if I am not mistaken, hemorrhage followed a wound of the sole of the foot, inflicted by a scythe, by which he was much debilitated; but, here also, the ulcer was healed readily. A short time afterwards he had a tooth extracted, which brought on hemorrhage, and although very copious, it was stopped by cold and astringent applications.

When learning his trade, that of a tailor, he often carelessly wounded himself with his needle, but without particular injury. In the year 1810, he received a contusion on the top of his left thumb, and he endeavored to suppress the hemorrhage by compression, which did not answer well, for his thumb and whole hand swelled and became black, so that compression was dispensed with. The pain was mitigated, but the bleeding began afresh; yet, when he became much debilitated, it ceased spontaneously.

In 1817, he received a severe contusion by the kick of a horse, and, shortly afterwards, a black and tense tumor, of the size of a man's fist, appeared upon the symphysis of the pubis. He was taken into the Hospital of Christiansburg, where, the most copious bleedings occurred—the tumor, as he stated, was opened, and the contained coagulated blood washed out. After the hemorrhage had lasted twenty-four hours, the wound was cleaned and filled with lint; and compression applied, by which the bleeding was suppressed; but the most violent pains came on, and the circumjacent parts swelled, and took on a black and livid color. Two days having elapsed, the tumor broke near the incision, when, there was a most copious flow of putrid, commingled with fresh blood, affording much relief to the patient; and the hemorrhage ceased when suppuration commenced: the ulcer left a large transverse cicatrix, which limited the sphacelus of the prepuce (as related before). Afterwards, having gone to Dania, he married and became the father of three girls; the eldest of

whom was rickety, and also labored under a difficulty in passing her urine: nevertheless she was not affected with the morbid hemorrhagic disposition of her father. The youngest, now three years of age, was likewise, exempt hitherto from this predisposition: the second girl, however, though in other respects possessing the most perfect health, was afflicted with this disposition to hemorrhage.

The patient likewise spoke of the difficulty he had in discharging his urine. He stated that when a boy, he had a burning pain in the urethra, quite stinging in the act of passing the urine; sometimes it appeared as if it was retained in some part of the urethra, but rest and warmth being resorted to, it would, without difficulty seek its way out per vias naturales. Very often, and particularly, when riding on horseback, or in a carriage, he observed that blood was mixed with his urine; but, afterwards, when his mode of life became more sedentary, this circumstance did not occur.

Three years preceding, when a citizen of Holbeck, he accidentally received a contusion from a club, on the right side of his perineum, and soon afterwards, a large and livid tumor, occupying the scrotum and the whole perineum, made its appearance. Leeches were applied; the punctures of which caused hemorrhage, which was stopped with the greatest difficulty. The tumor, however, decreased gradually, but the difficulty of passing his urine was much increased.

In the following year, the patient was seized after a chill, with the most violent pain in the act of passing his urine. At the same time, there appeared a large tumor in the scrotum; and, the urine infiltrated itself into the little cells there formed; and produced those fistulæ in the perineum, a part of which are still open, some closed by cicatrices. Soon after this infiltration, the patient perceived the ulcer to be increasing more and more, the orifice of which was so great, that he could introduce his three fingers, after he had extracted a clot of coagulated blood. This aperture became perfectly closed up, leaving however, a large cicatrix besides the fistulæ already mentioned.

*A case of lithotomy in a subject predisposed to hemorrhage, and who died, we believe, in consequence of this peculiarity of constitution.*

We were called into the country about thirty miles, to see Mr. George Caltrider, of Baltimore county, who had been greatly afflicted five or six years with symptoms of stone. Our appointment having been made, his physician, doctor Shower, had prudently given the patient a dose of castor-oil, the day before we arrived. We were informed that this patient had been pretty

much disabled for some years, from attending to his farm, and indeed, for two or three years, he had been confined to bed a good part of his time. For some weeks he had had a violent fit of stone, and although he had lately made up his mind to be operated on, he had the most fearful apprehensions respecting his being taken to town. He said such was the pain from motion of every kind, that a removal of thirty miles was out of the question; and seeing that the fit had been abating for some time, the patient now growing comparatively comfortable, and thinking, from the absence of fever, at this time, and the reasonably tranquil state of his countenance, that we might undertake the case, we agreed to operate at his own house, where he had every reasonable comfort, and a kind, willing and competent wife, and many kind relations at hand to assist her.

On the 10th of April, 1831, we operated in the presence of doctor Shower, doctor Jones, my son, and Mr. Betts. Having made the necessary incisions in the usual way, we readily extracted a calculus, about half an ounce in weight—upon feeling again, we discovered another stone, which being too large for the grasp of Barton's forceps, broke them, and rendered it necessary for us to introduce a very large strong pair, with which we hoped to break the calculus, but in this we were disappointed; but found no particular difficulty after enlarging very slightly, the wound through the prostrate, in extracting a stone of very considerable dimensions with strong forceps. There was nothing remarkable in the operation, excepting, perhaps, a little delay; and the application of a little more force than we were accustomed to make, in extracting the calculus; but we never felt better satisfied of a patient having gone safely through the operation. We observed that the *arteria transversalis perionei* bled pretty freely for a minute or two; but before we were done the operation it had ceased, so that we could see nothing of the artery. In perhaps two hours, we left the patient pretty comfortable—he had taken an opiate—we remained at his father's all night, where we waited till our friend, doctor Shower, reported to us early in the morning, that all was well: that the patient had had a better night than could have been expected.

We now left our patient, perfectly satisfied that we had done our duty, and there was every reason to believe, that he would soon be restored to health; and so far as the ordinary circumstances connected with lithotomy were concerned, nothing untoward occurred; we shall therefore, confine our future remarks, to an unforeseen circumstance which presented itself, and was doubtless the cause of the patient's death, which took place 21 or 22 days after the operation.

This untoward circumstance, which we have just alluded to

and which did not come to our knowledge till after the operation, nor, indeed, till our second visit, was a disposition to hæmorrhage, or what we have ventured to call hæmorrhagic lusæ. Not having been present, nor kept any account of the case, we are dependent upon the letters of doctor Shower, for such particulars as we possess—and we should be wanting in duty, and a sense of justice, were we to omit mentioning, that the doctor attended this patient through his difficulties, with a fidelity and skill, which, while they entitle him to the respect and thanks of relatives and myself, entitle him to honorable commendation for the discernment he manifested, and the correct practice which he pursued.

We have already stated, that the operation was performed on the 10th of April, the patient was put to bed with a very small loss of blood: on the 14th, doctor Shower wrote as follows;—"until yesterday morning at 4 o'clock, Mr. Caltrider was, as I supposed, doing very well." This state of things continued, "till about 10 o'clock on Tuesday, (the operation was on Saturday,) when the tube, [left in the penis] was stopped with blood and matter, and in the morning a little before 4 o'clock, there was a powerful contraction of the bladder, and, as they tell me, forced the tube out of the bladder, and tore open the adhesions of the wound, through which passed large lumps of coagulated blood." "The urine passed freely for several hours, when there was a powerful effort of the bladder, which produced effects similar to those in the morning." "At 8 o'clock last evening, the bladder contracted again, expelling arterial blood, both by the wound and the penis." We would here remark, of the mention of arterial blood, that at this time doctor Shower was not aware of the hæmorrhagic disposition of the patient, and we shall see presently, that he afterwards changed his opinion, as new circumstances threw additional light on the subject.

On the 16th we had the following account.—"There appears to be a continual collection of blood in the bladder, which is thrown off with much pain."—"Last evening he had a recurrence of the painful affection of the bladder, discharging considerable quantities of blood from time to time."

On the 19th of April, the doctor writes—"about midnight there occurred the most profuse hæmorrhage, and painful contractions of the bladder he had yet experienced—in this situation he continued till I saw him this morning." There was extreme debility at this time. On the 20th we visited our patient, and found nothing remarkable: there was a good deal of debility, but there having been no hæmorrhage after doctor Shower's letter of yesterday, he had somewhat recovered the shock, and assumed some

degree of cheerfulness. On this occasion, we observed upon wiping the wound very gently with a sponge, that a little place, about an inch by a fourth in width, bled freely from many small vessels—it presented, indeed, precisely the same appearance as if a small incision had been made to take off a slice from the sore—it continued to bleed as long as we wiped it off, but upon letting it alone a few minutes, it ceased to bleed.

In the letter of the 16th, our friend writes that—"I have some apprehension the hemorrhage will give much trouble. There seems to be a disposition in the family to bleed profusely from slight causes. He once had so profuse a bleeding following the extraction of a tooth, that he fainted away. The same happened twice to one of his sisters."

Letter dated 25th April—"His urine is quite tinged with blood." "I detached the sponge a little from the wound, and discovered a great disposition to bleed—the blood came from the whole exposed surface." We consider this a most interesting fact, that the doctor should have had an opportunity of seeing, so plainly, the nature of the case. This puts it out of all question, that the hemorrhage was not owing to an open artery—we may remark here, that this observation was made on the 25th, that is 16 days after the operation. We are told, that "night before last, there was a slight recurrence of it, (hemorrhage) the quantity probably did not exceed a table spoonful." We think this also an interesting fact, since we may believe, that if any artery had been open, it would not have bled so little.

We shall now hasten to draw this article to a close. We visited this patient a second time after the operation, on the 22d of April: we saw nothing remarkable, excepting, that there was a disposition to cholera, which was controlled by opiates. And on the morning of 23d, when we were about to leave him, we discovered a coagulum hanging in the wound, and although it adhered tolerably, we preferred removing it before leaving the patient, lest he might be overtaken with bleeding as soon as we were gone. Upon withdrawing it the blood gushed out, and fell from the side of the wound like a ribbon—so copious was the flow, that we feared he would bleed to death instantaneously, but concealing our feelings, we pressed into the wound two pieces of sponge, and held them in—in a minute the blood flowed in a strong stream from the tube which was in the urethra. The compression, however, seemed to answer a good purpose, the bleeding soon ceased, and did not recur after this. From the rapidity of the flow, we have no doubt, the patient must have lost vast quantities of blood. We also remarked that the blood, as well of the coagulum which we removed, as that which flowed from the wound, and from the tube; coagulated very rapidly and strongly.

We have already remarked, that we had no knowledge of the disposition to hemorrhage in the family, nor had doctor Shower, as far as we know. If we had, we should not have operated on the patient out of town—we do not wish to insinuate, that he would have fared better had he been in town, we believe every thing was done for him; but every surgeon, who is responsible for consequences, would like under such circumstances to have the patient under his own eye.

So rare is this peculiarity, that we cannot take any blame for having omitted to make inquiry—it has never been the subject of practical lessons. But there being now, a good many cases on record, we deem it a duty to call attention to the dangers which may thence arise, and we hope, this paper may be the means of calling attention to the hæmorrhagic disposition.

At our last visit, we were informed that this was quite a family affair, at least, as regards bleeding at the nose. The father of this patient, some of the patient's brothers and sisters, and some of their children, are subject to frequent and alarming hæmorrhage from the nose. It commences pretty early in life, and we may well suppose, there must be something extraordinary about it, from what escaped the mother of the patient, who is old, serious and respectable. She observed, that from what she had seen, she was satisfied *George* would have done well, had it not been for his disposition to bleed. That she had a bleeding family, that she had suffered vast anxiety and trouble from their very frequent bleedings at the nose. That there was a large flat stone lying at her back door, upon which the family were in the habit of sitting whenever they bled at the nose, and that it really looked to her, as if the face of the stone was worn into a hollow, by its long and frequent use, by those who bled at her house; that is, her husband, several of her children, male and female, and some of her grand children.

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ART. VIII.—*Observations on fractures of the bones, in which some notice is taken of artificial joints, and the process of ossification cursorily examined.*

In our last number, (5) we promised to take some notice of the subject of fracture, and of artificial joints. In our endeavors to fulfil this promise, we have been much gratified to find some



interesting observations on the subject generally, in the last number of the *Edinburgh Medical and Surgical Journal*, (of April, 1831). We shall introduce these observations to our readers, before we proceed to our own reflections and experience, on a point or two connected with the subject of fracture of the human bones.

It is well known to every general reader upon medical science, that there has been much discrepancy of opinion respecting the exact nature and course, of the process of ossification, for the repair of fracture. This difference of opinion, will appear less remarkable when we recollect, that it is very rarely that opportunity is had for the dissection of fractured limbs, at the suitable periods for making the desired examination of the deranged parts. If patients are so much injured at the time of fracture, as to endanger life, they generally die before the period at which the ossific process is fully established. In a vast majority of these cases, however, the patients recover; and, thus are we kept from any examination of the parts.

Owing to the above state of things, physiologists have been under the necessity of making experiments upon brutes; a method of procedure always attended with much uncertainty—so much, that no reliance can be placed upon them for practical purposes. This opinion is fully maintained by the experiments of Duhamel and others; and those more recently by M. Breschet. At all events, it now evidently appears, by the dissection of human limbs, at the proper period, contrasted with the conclusions of the authors just named, that the phenomena which were observed on the brutes and the human body, by no means correspond. Nothing is more certain, than that however useful comparative anatomy may be, in the illustration of physiology, pathology, &c. still we can never venture to determine, that any certain phenomenon, which obtains in one or more of the inferior animals, will obtain in the human body. And hence it is, that while experiments upon brutes serve to throw more or less glimmerings of light upon physiology, pathology and therapeutics, the more direct rays, upon which alone we can place full reliance, are only met with when we look at the human machine itself.

It is not our intention at this time, to enter into an extended view of *fracture*. We are desirous of saying a few words on the subject of artificial joints, or cases of non-union of bone after fracture; and to report a very remarkable case of imperfect union, with extreme deformity, which was successfully treated.

There is a circumstance connected with ossification in all cases, which has been long since observed and properly appreciated, we mean the fact, that no bone is ever formed except in retirement from the air and light. But there is a fact, closely allied

to this, which seems to have been overlooked, very generally at least. We have long since remarked, that this condition of things, applies no less to the softer parts—they will granulate somewhat, but there is a constant tendency in all cases of separation of parts, to the formation of a covering by lymph, pus or scabbing. This fact is of high importance, in a practical point of view, since we are convinced by oft repeated observation, that much of that indisposition for lacerated parts to heal, is owing to their not being covered in well, from the light and air. And it will be found in many cases, where we do not expect to heal by the first intention, that we will lessen suppuration, and hasten the cure by covering with adhesive strips.

We now proceed to call the reader's attention to so much of the report, for the six months preceding the 1st of April, 1831, as we deem particularly interesting, in the report of the Edinburgh Surgical Hospital.

"It appears that altogether, since the Hospital was opened in May, 1829, upwards of 140 cases of fracture have come under treatment.\* And having thus had a favorable opportunity of observing the circumstances most deserving of attention in the management of these accidents, which can be obtained only in an hospital, and having also made some dissections which tend to throw light on the very interesting and important, though still

\* It certainly must appear very remarkable to an American surgeon, to hear of 140 cases of fracture being admitted in somewhat less than two years into an hospital, in which 149 patients were admitted within the last six months. Baltimore at the census before the last, contained sixty-two thousand inhabitants, at the end of ten years thereafter, about eighty thousand; we feel fully persuaded that the total number of fractures within those ten years, will not be double the number admitted at the Edinburgh Surgical Hospital. To what shall we attribute this remarkable difference, or is it accidental? From what the present writer saw in Europe, he has been led to believe, that there are many more casualties of this kind occurring there than in this country. Is there a greater fragility of the human bone in the old country? Whatever answer may be given to this by others, we are inclined to the opinion, that such is the fact.—We found this opinion upon the fact, of there being more scrofula in Europe pretty generally, than obtains in America, which we infer from the great number of deformed persons to be seen. And we are quite certain, that in some of the more northern parts of the former country, deformity of the human body is much more common than in this country. But in addition to this pathological cause of the greater prevalence of this disease, for we think there must be some defect in the bony stamina, the men are subjected to greater risk, from their having to perform more coarse or rough labor. We think it would be a matter of some interest to ascertain the cause of the difference, if such material difference there be, as we have been led to believe. Would it not be well for the profession hereafter to report the cause of every fracture, which comes under their notice in the different countries.

rather mysterious question, of the reunion of bones. I think that a part of the report cannot be better employed than by devoting it to this subject.

Though bones are broken and reunited every day, we hardly ever meet two surgeons who are agreed as to the process by which their reunion is accomplished. One says that it is ossification of the periosteum; another, that it depends entirely upon effusion of the bones themselves, &c. This diversity of opinion, proceeds chiefly from the difficulty of gaining access to the bones while their union is going forwards, so as to ascertain positively the different steps by which it is accomplished; and the best way of putting an end to it is, for every one who meets with an opportunity of making such an examination, to record, distinctly and faithfully, what he sees. I will endeavor to do this in regard to two cases which lately occurred in the Hospital: but in the first place, I think it necessary to say a few words respecting the opinions entertained on the subject.

The most elaborate and circumstantial detail of the reparation of fractures which we possess, is that contained in the treatise of "Breschet sur la formation du Cal, Paris, 1819." He made many experiments on dogs and pigeons, to elucidate the process, and was led to conclude from his observations, that it consisted in the following steps: 1st, in effusion into the surrounding soft parts, and gradual ossification of a layer of them exterior to the bones; 2d, in effusion in the medullary canal, and subsequent ossification of it; 3d, the formation of an intermediate substance between the fractured surfaces, which, in course of time, it might be not until months had elapsed, became converted into perfect bone. How far this description is applicable to the changes which take place in the human subject, remains to be proved.

That the bones are not united merely by ossification of the periosteum, may be proved at once by cutting them through longitudinally when the ends are found firmly united together, and even the medullary canal filled with osseous matter. If the section, indeed, is made at an early period after the injury has been sustained, the fractured surfaces remain united; and hence Duhamel, who, from analogy, had taken up the idea, that ossification of the periosteum effected the reparation, just as the deposition of wood from the bark unites the graft of a tree, was confirmed in his error, because he did not extend his observations beyond the fifteenth day.

It is confidently maintained by some, and I myself used to subscribe to the same opinion, that the new bone or callus results entirely from the old one, and is gradually completed through successive stages, in which a gelatinous matter effused from the osseous surfaces becomes more and more firm, then

cartilaginous, and at last identical with the tissue from which it proceeded. Analogy, no doubt, is in favor of this explanation; and the appearances observed in the bones, at a considerable distance of time, after they have been fractured, also tend to support it; but there are some facts which may be alleged in objection, and, as I think, afford unquestionable evidence against its truth.

It is daily observed, in treating fractures of long bones, such as the tibia, and femur, that notwithstanding the most careful and effectual means are employed to retain the corresponding surfaces *in situ*, they remain moveable for many days, and, indeed, generally, for the best part of three weeks, during the whole of which period, the crepitation heard or felt by moving the limb, is as distinct as immediately after the injury has occurred. The mobility usually ceases very suddenly, and the limb all at once regains such a degree of firmness as to sustain its own weight, or resist any other equivalent force tending to bend it; but if subjected to more considerable violence at this time, it gives way again at the part originally fractured. When such fractures are dissected within the first two or three weeks of their existence, the ends of the bones are found quite separate and unconnected, by any intermediate substance. These facts are quite opposed to the idea, that the uniting process consists entirely in the effusion and ossification of a substance proceeding from the surfaces of the bones, in which case the mobility should diminish gradually, and flexibility continue long after mobility had ceased, before the establishment of perfect rigidity.

Case 1. Catharine Adams, æt. 52, was admitted on the 12th of January, soon after sustaining a fracture of the right thigh bone, in its lower third by falling on her side. Pasteboard splints were applied to keep the limb steady, and then by means of the long splint of Desault, extension was effected, so as to prevent retraction of the broken surfaces, which were very oblique. Every thing appeared to be doing well, until the 23d of January, when she had a long and severe rigor, and afterwards complained of general uneasiness, with the other usual symptoms of fever. On the following day, her tongue was brown and hard; her pulse frequent, but weak; and her appearance upon the whole extremely unpromising. Thinking that she would not bear bleeding, I desired that she should have her bowels freely opened by injections, and afterwards take small doses of antimonial solution. On the 25th, she complained of her throat being very sore, and her respiration was performed with the peculiar sound which indicates edema of the glottis. Though this symptom was very distinctly marked, it did not seem to warrant tracheotomy, as

red, obtained possession of the bones for their more careful examination. When divested of their muscular coverings, they presented an appearance hardly differing from that naturally belonging to them. All the pieces into which they had been broken were firmly united to each other, and to their shafts, and were covered with a periosteum of usual consistence. On closer examination, the interstices between these portions were found to be occupied by a soft bloody gelatinous substance, to ascertain the precise nature of which the preparation was macerated. When all the interstitial matter had been thus separated, it was seen that the united fragments of the tibia, which were thirteen in number, constituted merely a skeleton, so to speak, of the cylinder, and that the central cavity remained entirely vacant. On examining the internal surface of this imperfect shell, it was evident that an ossific process, had been going on over the whole of it, and I have no doubt, that if the patient had lived some months longer, the bones would have been completely solid. The fibula presented similar appearances though on a smaller scale, and the process of reunion was more nearly perfected. There is in my possession the preparation of a thigh bone, which was fractured through the neck and trochanters, and was treated by my friend Mr. George White. The patient died two months after the accident from some other cause. It now appears, the bone having been macerated, that all the broken portions are firmly united together at the edges, and that all their internal surfaces remain perfectly distinct and separate. The appearance, in short, is very nearly the same, and, I believe, would also have terminated in compact ossification, if the necessary time had been afforded.

I will take the first opportunity of returning to this subject, and endeavor to elucidate it farther. In the mean time, it may not be improper to remark, that the delay which would occur before the broken surfaces of the bones are united, affords no reason or excuse for the practice that is sometimes recommended of deferring the use of any means to keep the limb in proper position, until ten or twelve days have elapsed after the accident.—The first step in the process of reparation seems to be thickening of the surface presented by the surrounding tissues, from effusion into them; and as this, we have reason to believe, is commenced immediately, without a day's delay, if the surgeon defers setting the bones, he will not only lose the assistance thus afforded, in preventing their displacement, but also run the risk of allowing the broken extremities to become so far fixed in the distorted situations into which they have been driven by the contraction of the muscles, or the weight of the limb, as to prevent their perfect adjustment, by any force which he has it in his power to employ."

The following quotation is from the Edinburgh Medical and Surgical Journal, and makes a part of the interesting paper from which we have copied the remarks, on the process of ossification in the restoration of fractured bones.—“There cannot be any doubt, I think, that this accident, (fracture of the thigh,) is most effectually treated by means of pasteboard splints on each side of the thigh, to keep the limb steady, and a long wooden one to make extension. As the muscles of the thigh cannot be relaxed, both before and behind, at the same time, by any position, it is necessary to counteract the retraction which they cause, by the employment of some mechanical extending power; and the simple long splint of Desault effects this completely; the modifications of Boyer and others, merely impede its operation. There are some cases which admit of no other treatment; as, for instance, the one mentioned in the former report of a woman, who, from falling out of a window three stories high, fractured both the patella and the femur. On the other hand, it must be allowed, that sometimes there occur cases in which the straight position is inadmissible. I have related one instance of this in the third report, in the case of a man who had a stiff and bent knee joint, and may now add another.”

We have long been aware of the fallacy of attempting to relax all of the muscles of the thigh by flexing the joints, and also, that there is no plan equal to that of extension by a long splint, in cases of oblique fracture; but we by no means agree with the talented writer of the above paragraph, that “the modifications by Boyer and others, merely impede its operation.” It is said in another of the Edinburgh hospital reports, that they have used the long splint with the most satisfactory success. We were much pleased to have the plan which we have employed for many years, approved of by authority so respectable; but, we were no little surprised to learn, that they use Desault’s splint in preference to all “others,” and therefore not only exclude the splint of doctor Physick, but, of course, condemn it by this wholesale assertion, that all others are but impairments upon that which they employ at the Edinburgh surgical hospital. Although we most readily credit the reports of uniform success in this hospital, yet we can only believe such results attainable by surgeons highly talented, in this branch of practice; with such, almost any apparatus will succeed; but if we do not greatly err, the less experienced part of the profession will succeed far better, by using the long splint of Physick. We have tried both, and we know of nothing connected with the treatment of fractures of the thigh, so certain, and so manifest to those who will impartially test the matter, as that doctor Physick’s splint is more easily managed, and is, therefore, a better apparatus for oblique frac

ture of the thigh, than that of Baron Boyer, doctor Hartshorne, Desault, or, indeed, any other.

There is reason for believing, that doctor Dorsey's surgery has done vast injury to the reputation of doctor Physick's splint. The drawing in which is represented the application of this apparatus, is a perfect caricature: and the late doctor Davidge, who had a singular propensity to find fault, used in his lectures to indulge his jeers about this apparatus, with no little vehemence. Nothing can be further from the truth, or more poorly represent the nature, and form, and mode of application of an apparatus, than does the plate alluded to in Dorsey's Surgery. So far are we from pressing the splint forcibly into the axilla, that we have for many years ceased to apply any pressure whatever, either in the axilla or groin. The most ample force of extension can be made and maintained, by means of a long splint properly applied, without any pressure being made at the upper end of the splint; a splint so applied, answers admirably well, as we know by a trial of nearly twenty years. We owe the method which we have so long practised, so much to our satisfaction, to Baron Boyer. Such being the fact, we shall very briefly quote what he has said on the point before us; and to which we owe a plan of treatment which we have found more convenient and effectual, than any other; and we have tried nearly all the different apparatus, including the inclined plane, and that of Mr. Pott.

Baron Boyer in laying down the plan of application, and the principles connected with the subject of applying apparatus, in cases of oblique fracture of the thigh, says, among other things, that "extension, and counter extension, ought to be applied to as large a surface as possible. The reason of this rule is evident, because external agents acting upon a large surface with a given degree of pressure, compress each part less. The bandages should therefore be very broad." This is probably one of the most important points connected with the subject of fracture; and to it we owe our best rule of practice; and yet we will venture to say that, most readers have overlooked this truly important lesson of B. Boyer. Indeed, it can scarcely be said to bear the construction which we give it; but however this be, we are free to acknowledge, that it is to this paragraph we owe the plan which we now recommend, after the most ample trial of it. We are told, that the extension and counter extension should be applied over as great an extent of surface as possible. This leads the present writer to see, that as you extend the length of two flat bodies lying in contact, so will you rapidly increase the resistance to their moving over each other. But, says B. Boyer, therefore, your bandages should be very broad: this last clause

takes off the attention from the main point, which we have just noticed.

Nothing perhaps admits of more easy illustration, than the principle which we have just noticed, that is, the laws by which two flat bodies laid into contact, are made to resist any force tending to move the one upon the other—for instance, if we take two pieces of smooth board about six inches wide, and a foot or two in length, and tie a string or two around them, we shall find that although the surrounding strings are pretty loose, yet, the upper board does not move without considerable force: but increase the length of the boards, retaining the same smooth surfaces in contact, and put strings about them, and you will find the resistance to motion, increased to an astonishing degree. A knowledge of this circumstance led us many years ago, to avail ourselves of the apparatus of doctor Physick, with some modification—a modification, however, which we believe renders the apparatus ten-fold more useful.

It has been our uniform practice, to apply, in cases of oblique fracture of the thigh, a splint, which reaches from the axilla to a few inches beyond the foot. In a large man this splint is about five inches wide, and about half an inch thick; and the inside splint is made of the same thickness and width, and long enough to reach from about an inch below the crotch to the same distance below the foot as the long one. The cross piece upon which the extending bandage is to be applied, is used in the ordinary way—this is important, as well on account of its converting both splints into one piece, (giving to it the form of a box, has the effect of preventing the pieces from turning on their edges,) as on account of its use in tying the extending bandage around it. Opposite the flank, or just above the wing of the ilium, there is two long slits in the longer splint, for the purpose of passing through it a broad strip of muslin, about four or five inches wide, this bandage is then carried round the body and tied, or carried several times round, and pinned at its end. By drawing this band as tight as the patient can well bear it, without pain, we cause the long splint to lie with a considerable extent of flat surface to the trunk, pelvis, thigh and leg. And when we have so applied and laid the shorter and inner splint on the inside, reaching to near the crotch, it will be found, that we can apply as much force to the extending bandage as the patient can bear, without pushing up the splints. Before closing the splints to the limb and trunk, we carefully fill up all inequalities of the leg and thigh, along both splints; and also along the pelvis and trunk; this may be done with little cushions of chaff, or compresses made of folded old soft cotton cloth—the apparatus thus



adjusted, we now tie the splints to the limb, by passing round several pieces of tape, or strips of muslin; these should be applied but moderately tight.

We have found the above arrangement or apparatus, answer equally well in cases of fracture of the neck of the femur as in fracture of the shaft of the bone. In order to secure the full effect of any apparatus for extension, it is absolutely essential, that the patient be laid upon a proper bed—this in private practice, is sometimes a source of difficulty for want of the suitable bedding; but even when every thing is to be had, surgeons sometimes are inattentive to this important point. A good firm mattress of hair, wool, or cotton, will be the best articles for the patient's bed—but a very good bed may be made by laying two or three blankets, quilts, &c. on a feather or chaff bed; or these articles alone, laid on a sacking bottom, will do very well in warm weather. We wish here to be understood, that we are not conjecturing, that such and such will be the result of our method, but we offer it as the result of many years experience, attended with a degree of success, which leaves us no room to desire a better apparatus.

Before we enter upon a few remarks upon the subject of non-union, we shall briefly relate an interesting case of fracture. Early in the month of June, 1830, we were called by our friend, doctor S. B. Martin, to the case of captain Jesse Brown, of Fell's Point. Captain Brown had suffered a double fracture of the thigh at sea, 30 days before we saw him. The attempt at applying splints was extremely awkward, since they were suffered to pass down below the fracture, so that, in addition to the usual fault of splints, applied by the unskilful, of being too short, they were short, and suffered to remain on the limb after it had become, as the saying is, as crooked as a ram's horn. The femur had been broken a little below the greater trochanter, and also about five or six inches below this; the piece thus separated, stood across the shaft of the bone almost at a right angle, so that the deformity was truly deplorable, and such as to produce a shortening of about 4 inches. There was evidence of nature's having been actively at work, from the great bulk of callus which surrounded the fractured parts.

The poor man was thus reduced to a most pitiable situation, the limb was now pretty firm, but with an amount of deformity, and crippling of the limb, which utterly forbid his ever going to sea again. Being a man in middle life, of firm constitution, and of no ordinary share of courage, we did not hesitate to recommend an effort to straighten the limb, at any expense of force which could be applied without endangering the life of the patient. Our friends, doctors S. B. and Joseph Martin, having

ing agreed to the proposal, I undertook the operation with their assistance. The necessary apparatus being arranged, a pulley was applied, as in cases of luxation; and a well regulated force applied for some minutes. It was soon seen that the parts were yielding, but not sufficiently, although a considerable degree of force was applied, till I applied both my hands to the angle which pointed outwards, and pressed the parts with considerable force, so as to force the angle inwards. By thus manœuvring, I soon succeeded in straightening the limb, by bringing up the deformed parts, and consequently in bringing the limb to its proper length. And thus in a few minutes we had the patient relieved of the deformity, and in a fair way to recover the use of the limb.

The long splint was now applied in the manner I have already stated, and in a few months, we had the satisfaction of seeing the patient's limb free from pain and swelling, or deformity; and nothing now wanting but a few months of time and care, to place him again upon two good legs. The patient has been walking for several months, with the aid of a staff; but the limb is still somewhat weak, stiff and occasionally uneasy. Here was a happy instance of the good effects of a little bold surgery. The patient, to be sure, suffered greatly during the operation, and a good deal for several days after it, but what is this, in the balance with his being crippled and deformed for life?

We shall conclude this paper, with a few remarks upon the subject of non-union or artificial joints. No one can be more sensible, than the present writer, of the value of the method proposed by doctor Physick, of treating some cases of non-union by the seton. We fully believe, that there are cases where nothing else will succeed, at least, we know it has succeeded well, notwithstanding that so many writers have paid so little attention to the subject; and that Mr. Lawrence, has rather remissly, or harshly condemned this method, as being of little or no value.

But however willing we may be, to acknowledge the utility of this method in certain cases, candor compels us to say, that, we are bound to believe from cases that have been reported, that this method will not always succeed; and we are decidedly of the opinion, that in most cases this painful operation is by no means necessary. We believe with Baron Boyer, that in many cases, it is only necessary to continue an extending apparatus, with great care, to obtain a complete union; although the process be delayed for many weeks, or months. In our last number, (5) we stated a very interesting case, in which the extending ap-

paratus succeeded, although no union had taken place, at the end of seven weeks.

Some years since, an elderly lady had her thigh fractured obliquely; the surgeon into whose hands she fell, was a man, who, among other odd freaks, took it into his head, that no splints were necessary in fracture, and publicly taught this opinion—afterwards it seems, he had occasion to change his opinion, so far as to apply extension simply without any lateral support to the fractured limb—contenting himself by making counter extension, by placing a folded sheet between the thighs, and carrying the ends obliquely over the bed, so as to fasten them to the bed post—then the foot was extended, by tying it to the foot of the bed.

The husband of this lady, told the present writer, seven months after the accident, that union had not taken place, notwithstanding, as he supposed, every thing had been done to keep the fragments in apposition—upon inquiry, we learned, that there were no lateral splints; we found no difficulty in convincing this gentleman, (for he applied to us for our opinion,) that the fault might be, and probably was, in the apparatus. He was shown how readily the fragments might move upon each other, notwithstanding, the upper and lower ends of the limb were immovably fixed. We soon convinced him, as a matter of common sense, that a limb could not be properly secured without lateral splints, during the breach of continuity of the bone. Although the acknowledgement was never directly made, yet some intimations were thrown out which led us to believe, that side splints were now applied; and in a few weeks after this, the lady was up upon crutches.

When we were at Hamburg last year, we saw an old gentleman, who was laboring under this misfortune, in the hospital, and, who, had suffered a fracture of the thigh several weeks before; we think sixty odd days, and there was no union. He had come into the hospital with the artificial joint, or, at least, with the bones in a state of non-union. He was upwards of sixty years of age.\* Our friend, doctor Fricke, was trusting to Haggdorn's apparatus. He promised to inform us of the result of the case, but, as yet, we have not heard the termination of this interesting case. But to conclude, the cases of B. Boyer, are sufficient of themselves, to show that extension alone will often succeed, by a long continuance of it, provided proper attention be paid to the diet, and medicinal treatment of the patient. Where there has been an ineffectual application of the extending apparatus, a renewal of it, with proper skill, will, we believe, always succeed.

\* We felt more interest in this case, from being told, that the patient was an American sea captain.

ART. IX.—*On the use of Wine and Distilled Spirit, as Medicines.* By SAMUEL ANNAN, M. D.

IT has been well observed, by an able writer in the Westminster Review, that "the system of medicine and surgery, which is established in any country, has a greater influence over the lives of its inhabitants, than the epidemic diseases produced by its climate, or the decisions of its government, concerning peace and war. The devastations of the yellow fever, will bear no comparison with the ravages committed by the Brunonian system; and the slaughter of the field of Waterloo counts not of victims a tithe of the number of which the Cullenian doctrine of debility can justly boast."

When death threatens at any of the multitudinous sally-ports of life, the doctor is immediately summoned to the defence of the citadel; and although he should march to the conflict, with the uncertain step and bended form of the weary pilgrim, instead of the dauntless front and mailed frame of the true knight, still as none but the initiated, or those pretending to be of that class, are deemed worthy of the high honor of engaging in this perilous encounter, protection is gladly sought from the one considered most competent to couch the lance or wield the sabre. When sickness or accident endangers life, if the skilful physician or surgeon cannot be obtained, the empiric will be employed. Our instinctive dread of death, drives us to the doctor, however unfit he may be to handle the delicate structure of human life.—Hence it is, that the community has more at stake in the education of physicians and surgeons, than of any other class of public characters; and the indifference exhibited on this momentous subject is matter of profound astonishment.

The tendency of the human mind to rush to extremes, is one of its most striking and remarkable characteristics. In science and in trade, immediately upon the discovery of a new truth, a rush is made upon it from all quarters, and the principle is attempted to be tortured into a thousand fantastic forms, to render it applicable to a multitude of cases far removed from its legitimate sphere of operation. In the arts, this is only productive of loss of time and capital; but in medical science the consequences are more lamentable; it not unfrequently causes the untimely death of thousands. It is in this way, that the grandest discoveries of the most eminent medical men the world has produced, have been followed by the most direful consequences, in the hands of the inexperienced. Dr. Rush's reputation gave currency to his valuable doctrines, respecting the utility of blood-letting in our summer and autumnal fevers; and too many have

supposed, with doctor Sangrado, that when their patients died, it was only because they had not been sufficiently bled. Doctor Hamilton, of Edinburgh, the author of the able work on purgatives, has been remotely instrumental in purging the life out of many an unfortunate patient; and doctor Brown, with his stimulants, aided by doctor Cullen's debility, has done more to unsettle the theories of population, than all the epidemics of modern times.

Here we have examples of the injudicious extension of principles radically true; which when confined within their proper limits, are productive of the greatest benefits to mankind; but applied out of their appropriate sphere are awfully calamitous.

Of all the monsters whom death has called to his assistance, in opposition to the advancing light of modern science, no one has proved so potent an ally as hydra-headed debility. He assaults both directly and indirectly; at one time he commences the combat; at another, he gives the finishing blow. Sometimes he attacks on the one side, sometimes on the other; sometimes from above, at others from below; and changes his appearance, and diversifies his mode of action in such a manner, as to keep the physician continually on the alert; and even then, he not unfrequently takes by surprise.

This formidable assailant is met by stimulants of various descriptions; and those of the most powerful character are often thought to be necessary. Alcohol, in the form of wine, and ardent spirit, are chiefly relied upon; and it is unquestionably of vast importance that we should be well acquainted with the circumstances under which such active agents are calculated to be useful; and understand thoroughly the power they exert upon the human system.

The animal economy is possessed of a principle called vital power, or excitability; which being acted upon by stimuli, produces excitement. If this *vis vitæ* is of healthful quantity or intensity, and the stimuli, such as light, heat, food, &c. are applied in corresponding proportion, healthy excitement, or life in its best condition, is the consequence. Withdraw all the vital power or excitability, and there is a cessation of animal life; remove stimuli of every description, and death is equally the result. It is the property of stimuli to expend vital power, in causing excitement. Hence we find, that labor, and the other stimuli of the day, produce considerable exhaustion against the approach of night; and "tired nature's sweet restorer, balmy sleep," is eagerly sought to recruit the diminished excitability. It appears then, that one of the laws of animal life, is, that provided the expenditure of *vis vitæ* is not carried beyond a certain point, and the animal machine is secured from intrusion in its

dormitory, there is a regenerating power exerted, which prepares a fresh supply of vital power, for the continuance of existence during the ensuing day. If the exhaustion is carried beyond a point which varies in different individuals, the capacity of restoration is destroyed and death follows. Another law of the animal economy is, that in proportion as the intensity of stimuli is augmented, is the rapidity and amount of the expenditure of vital power; and we frequently have stimuli applied in such force as to annihilate the *vis vitæ* instantaneously, as in the form of lightning.

Alcohol, it is admitted by all, is simply a stimulant. It augments the excitement and strength of the human system, only by rousing and bringing into action a greater portion of the vital power in a given time. It is true, the man is more vigorous for a certain period; but at the cost of the expenditure in one, of what ought to have served during a number of hours; the consequence is, that when the impression made has disappeared, languor and lassitude are exhibited; and the debility is in proportion to the previous excitement; the strength is as much below, as it was at first elevated above the natural standard. Unfortunately the depression rapidly succeeds the elevation; alcohol is a very diffusible stimulant, and its primary operation exceedingly evanescent. The patient is then in a worse state than he was before he took the medicine; he is not only weaker, but a considerable portion of *vis vitæ* has been expended; and his ability to endure the action of stimuli diminished, as well as his susceptibility of being acted upon. A weaker stimulus will now make but little impression; food for example, which ought to stimulate to that degree to ensure its own digestion, and which affords a supply of that which can be manufactured into vital power, will not now excite sufficiently, and indigestion with its train of evils ensues.

But is it the fact, that no good results from the excitement? that the debility is the only effect; and that alcohol is merely an irritant? always productive of injurious excitement? If there are any circumstances under which we can suppose the system to be possessed of *vis vitæ* in a dormant state, which the stimulus of the alcohol will bring forth to active and efficient operation, here it might be useful; but if such a state does ever occur, it is obviously impossible to distinguish it from cases of genuine exhaustion. We have no sufficient ground for believing that alcohol in any of its forms, or in any quantity can generate vital power: as has already been observed, it exhausts the energies of the system; as is proved by the debility succeeding its use after a longer or shorter period; and in proportion to

the quantity taken. It passes into the blood-vessels unaltered in its properties; mixes with the blood; courses round the circulation; goes into the brain, the fountain head of life; and causes the most dreadful commotion; and can only be regarded as an irritant, which the *vis conservatrix naturæ*, is desirous of expelling as speedily as possible. We therefore find it, in those who drink large quantities, issuing from the lungs by the mouth, in such a state of concentration, as to take fire if a flame is applied. Baron Haller records the case of a man who incautiously brought a lighted candle near his mouth, and the alcoholic vapor taking fire, his mouth and throat were burnt to that degree that mortification and death followed. Another case is recorded of a man, who could blow through a tube and set fire to the vapor issuing from the small extremity. The skin and kidneys also exert themselves in the expulsion of this deadly foe. It is owing to this power of throwing off the poison, that many persons constitutions, withstand a long course of intemperance; otherwise the quantity consumed would destroy them in a very short period.

We have, however, numerous cases of alarming exhaustion, from excessive heat and severe labor, where a small portion of alcohol has been thought to have been highly useful. I would ascribe the recovery in these cases to other causes. Rest in the horizontal posture, we know to be the appropriate means for recruiting the *vis vitæ*; and this with some light nourishing food, I believe restored persons so situated, in spite of the alcohol. In the cases of threatened death from cold, the same means, with moderate heat and friction, I believe to have been the real agents in the recovery. Heat and friction in these latter cases, do not act so much as stimuli, as by augmenting the temperature of the nearly frozen body, and thus restoring its susceptibility of being acted upon. The *vis vitæ* is frozen up; and until it is disengaged from the chilling action of the low temperature, stimuli of all kinds produce little or no effect. We can also suppose the possibility of other conditions of the system, in which the excitability has become torpid, and a portion of ardent spirit may restore it to activity; we may farther imagine cases, where there may be an excess of excitability, producing a state of suffocated excitement, or oppression of the moving power of the animal machine, and ardent spirit by expending a portion, drawing off some of the steam, may remove the risk of the boiler bursting. All this, however, is uncertain speculation; and although it does appear, as if in certain cases of exhaustion, threatening death, ardent spirit has sometimes been useful, I do not conceive the cases authorize us to ascribe the benefit to the spirit alone; other remedial agents having been simultaneously employed; and

possibly may have restored the patient in opposition to the alcohol.

Alcohol in the form of wine or distilled spirit, is frequently employed as a medicine in the state of debility, which succeeds protracted fevers and inflammations, and in typhus fever. It is here that the skill of the physician is most severely tasked; the weakness is alarming, and he resorts to that which is believed to be the main remedy for preventing an increase: the febrile action returns with fresh violence; he discontinues his stimulants, and the exhaustion wears a still more threatening aspect; he is between scylla and charybdis; and in avoiding the one, he is wrecked upon the other. These are the cases in which I have reason to believe incalculable mischief is done, by practitioners holding erroneous theories, as well as by the inexperienced.

Pathological anatomy has conclusively established, within a few years, that inflammation is a general concomitant of fever; so common is it, that some very respectable physicians regard it as the original cause of all fevers. This, I think, is a mistaken view of the subject. I believe it to be the effect, of febrile action excited by the poison applied to the body. Malaria unquestionably makes its first impression on the nervous system; this system alone is impressible; the first effect observable is languor and lassitude, with other symptoms of debility; then a chill more or less severe appears, and the hot stage follows.

Now the train of operations which is to develope what is called fever, viz: the chill and subsequent hot stage, is in progress prior to the appearance of the chill; and if the symptoms of inflammation are exhibited, we denominate the case inflammation of the organ in which the pain is felt: and here the febrile excitement is said to succeed, and be produced by the inflammation. This, however, admits of doubt. Take for example the simplest case of inflammation, where we can observe most clearly the chain of causation. A person is exposed to cold, and the next day is attacked by pleurisy or cynanche tonsillaris. The first effect of the exposure to cold, is diminution of the insensible perspiration; this causes an accumulation of fluid in the blood vessels; the organs of supply, and other organs of excretion, do not immediately become acquainted with the change of action of the skin; the blood vessels are therefore more or less distended. Now it is clear, that if the vessels of any one part happen to be weaker than those of all other parts of the body, they will yield more readily to the distending force, and soon will be stretched to that degree that the symptoms of inflammation will show themselves; then the pain excites the nervous system, which soon acts upon the heart producing the frequent strong pulse of simple inflammation. On this view of



the subject, the fever is obviously consequent to the inflammation. But before we consider this as satisfactorily ascertained, we must inquire, what has been the effect, of the accumulation of fluid in the blood-vessels, upon the heart. I think it must be admitted, that increased action must be the inevitable result. For although it is the serous part of the blood that is retained, and it is thereby rendered less stimulating in quality, still the increase of quantity will more than compensate for this. A greater portion of blood must pass through the heart in a given time; the cavities must therefore be distended; this distention will stimulate them to more violent contraction; then there will be a larger column of blood to propel; and stronger contractions of the ventricles will be required for this purpose.

We thus may have increased action of the heart and arteries before the appearance of pain; and the blood being driven with augmented momentum through the vessels, if there is any one point weaker than others, it will yield until the congestion goes far enough to cause pain, by the stretching of, and pressure upon the nerves, and then we say that inflammation is developed. These two causes, the weakness of the vessels of a particular part, and the increased action of the heart, co-operate in the production of inflammation. So soon as the pain appears, it reacts upon the heart through the medium of the nerves, and the febrile excitement becomes higher. Now, I have no doubt, but that the diminution of the accustomed discharge from the skin, and the consequent plethora of the blood vessels, will excite the heart, and cause febrile action, before the vessels of any part, although distended more than those of any other part, shall have yielded to that degree which will produce pain. If this is true, even in simple inflammation, the feverish excitement precedes the inflammation. Another fact strongly corroborative of this view of the question is, that the chill and hot stage are frequently antecedent to the pain. In a number of cases, however, the irritation of the pain, appears to be requisite to the production of the chill; but this does not preclude the increased action of the heart, from the plethora of the sanguiferous system.

We know so little of the healthy action of the nervous system, that we cannot reason with any certainty on its morbid operations. Irritation unquestionably precedes inflammation, in some cases, and may act in three ways; 1st, the functional action of the irritated organ may be disturbed, and diminished secretion the consequence; this will cause more or less of plethora of the sanguiferous system: 2dly, increased action of the heart may be produced by it, independent of plethora, and 3dly, it may weaken the blood vessels of the irritated part. An irritating substance applied to a part, excites the arteries; they being possessed of irritability as

well as the heart; and thus by driving the blood with greater momentum into the capillaries, distends them, and inflammation is the result. This is the mode of action of blisters and other local irritations.

In idiopathic fever, the malarious poison first causes debility, which is accompanied by, and probably produces diminished secretion and excretion; plethora of the sanguiferous system follows; then come the chill and hot stage. The reason why we do not have the full strong pulse, or in other words, the increased action, which precedes simple inflammation, and is produced by the plethoric state of the blood vessels, is that the poison has depressed the vital powers to that degree, that a greater amount of plethora is requisite to excite the heart and arteries. When the chill comes on, the blood is forced from the surface to the central vessels, the heart although very torpid and insensible, is roused to high action, and the hot stage ensues. Now the question simply is, have we any symptoms of local inflammation, antecedent to the first febrile paroxysm? This question must, as the general law, be answered in the negative. It will not do to say that inflammation may be present, although there are no symptoms exhibited. We may conjecture any thing we please; but that is not proof. There is no question but that during the precursory state of languor and lassitude, the plethora caused by the diminished secretions and excretions, may produce considerable congestion in the weakest organ; even to that extent, that if the sensibility of the system was not greatly decreased, pain might be experienced; but this is a part of the chain of causation; the malaria being the "primum mobile;" and as no pain is felt, no febrile action, can be predicated upon such a state of congestion; inasmuch as we have no sufficient ground for believing, that until the distension goes far enough to cause pain, it will react on the heart. I think then it is manifest, that the debility caused by the primary action of the malarious poison, which no doubt is greatest in the organ previously weakest, if there happen to be such an one; that the plethora caused by the diminution of the secretions and excretions, with the addition of that brought on by the chill, driving the blood to the centre, and certainly distending the vessels of the weakest organ more than those of any other; and the subsequent strong action of the heart during the exacerbation; all combine to set up the inflammation observed in most of the fatal cases of idiopathic fever. The more violent the exacerbation, the greater is the danger of inflammation in some of the important organs. The blood is driven with tremendous force to the extremities of the arteries; and if any organ is already congested considerably more than others, inflammation is the inevitable consequence of the

first paroxysm. But if, there is an equilibrium of power, and every organ send the blood out as fast as it comes in, the velocity of its motion may be accelerated to infinity, and inflammation would not ensue. It is owing to this equilibrium of power among the different organs, that inflammation does not, for the most part, make its appearance until the fever has made some progress. Then when one organ has suffered more than the others, it yields to the distending force of the heart's action during the exacerbation, and we have inflammation developed frequently late in the disease. It may, however, and not unfrequently does, present itself during the first paroxysm; and hence the incalculable value of bloodletting in the first exacerbation, if it is violent, and more especially if accompanied by pain of any organ.

Whether the foregoing reasoning respecting the series of actions which constitute fever and inflammation be true or not, the fact that the latter frequently co-exists with the former, and is most generally the cause of the fatal termination, is unquestionable. The treatment adapted to the early stages of the disease, is therefore perfectly clear. All the indications are antiphlogistic. But when the fever has advanced considerably, and debility begins to wear a threatening aspect, then comes the tug of war. The exacerbations present themselves regularly every day, and are wearing down the strength of the patient, and depletion is no longer admissible; danger apprehended even from the mildest laxative. I do not stop to inquire whether, no treatment, or bad treatment, at the commencement has brought the patient to this state; it is simply the fact of the great debility and the continuance of the fever, to which I wish to direct the attention. The symptoms of inflammation, if any had presented themselves, will in all probability have disappeared; partly from the treatment, and partly from the diminished sensibility of the nervous system. The best observations assure us, however, that in a large majority of such cases, inflammation of a higher or lower grade, will have been present in some one of the important organs of the head, chest or abdomen.

Now in this condition of affairs, too many practitioners regard their patients as having fallen into a typhoid state of fever; and have recourse to tonics and stimulants. Camphor, quinine, wine, and brandy, are administered according to the supposed degree of the debility; and the quantity of brandy occasionally given is astonishing.

The English and French pathologists, have proved conclusively, the existence of inflammation in a large majority of their fatal cases of fever; this constitutes the chief source of danger; in as much as it has been observed, that wherever congestion did not

proceed far enough to develop the symptoms of inflammation, the fever was easily cured.

There, no doubt, is moderate congestion in some one or more organs in most cases of fever; but until it produces the organic derangement of inflammation, it is removed without much difficulty. It is still more emphatically true of the fevers of this country, that they are characterised by high action; in most cases are decidedly inflammatory; and prove fatal through the medium of inflammation of some important organ. What ought to be called typhus fever, is exceedingly uncommon if it ever occurs.

A few examples may be witnessed in particular seasons, under peculiarity of location and other circumstances, when the malarious poison may have such force, or the powers of life of the individual be so weak, that reaction sufficient to bring on a well marked hot stage may not be produced, even during the first paroxysm; and thus we have a fever of low or typhoid action from the commencement. Doctor Duncan, of Edinburgh, informed me in 1820, that he had never seen a genuine case of Cullen's typhus fever; he always had reason for believing, that in the examples of typhus, which were presented at the Royal Infirmary, after some days existence, at the beginning of the disease, depletion would have been beneficial. But typhus fever is much more likely to occur in Europe, than in this country.

The crowded population of their large cities, greatly debilitated by severe labor, with the most scanty diet necessary to sustain life: badly lodged and clothed, and breathing a foul, murky, pestilential atmosphere, are peculiarly liable, one would suppose, to this form of fever. We find, however, from the above fact, that malaria must be greatly concentrated, or the powers of life exceedingly reduced, before all capacity of reaction is destroyed, in the human system. In Dublin, this state of things is more frequently observed than other European cities. They are visited by typhus fever in more or less virulence every year.

In the United States, where moderate labor, pure air, the best of clothing and lodging, and generous diet forming rich blood, all conspire to produce the phlogistic diathesis, and a vigorous constitution, it requires an amount of concentration of malaria to prostrate the vital powers to the extent that reaction cannot be exhibited, which is very seldom beheld. That patients do sometimes die in this country, as well as in Europe, where it is more common, for the reasons already stated, from simple *asthenia* or exhaustion of the powers of life, without any particular organ being effected, must be admitted; but it is so uncommon amongst us, that we ought to be particularly guarded in ascertaining its presence, before we venture to stimulate; and then proceed with

great caution and circumspection. This state of exhaustion is more likely to present itself after the fever has made some progress, than at the commencement. The excitement combined with the depressing operation of the malaria, prostrates the strength of the patient; and the equilibrium of the circulation, is still not disturbed to the extent of inflammation.

Now if it is true that the fevers of this country, are generally of high action; if it is true that inflammation of some important viscus is the principal cause of their fatal termination, we surely ought to be watchful, and prudent in the administration of tonics and stimulants.

Nearly all the cases where wine and brandy are exhibited, terminate fatally; and, when I hear that a person is afflicted with typhus fever, and is taking a half pint, a pint, or a quart of brandy in the twenty-four hours, I predict his death with almost absolute certainty; and am seldom mistaken. In many cases it excites the arterial system, so much as to bring on inflammation, where it did not previously exist: and this is what might rationally be expected. In this state of debility, the equilibrium of the circulation is more readily destroyed than at the beginning of the fever, when the organs were all comparatively vigorous. I have known a few small doses of camphor, develop inflammation in the latter stages of a case of fever. I have seen, a patient of my own, convalescing, after a violent attack of bilious colic, by drinking more freely than was allowed, of rich beef tea, attacked in the course of three or four hours with acute hepatitis, which required two or three copious bleedings to cure it.

What then is to be done? are we to suffer the patient to sink from debility? It is perfectly clear that inflammation, has been developed during the progress of the fever, and has been subdued only by the lancet and blisters; there must be great danger of causing its reappearance by the employment of stimulants; it being a law of inflammation, that it leaves a strong predisposition to return for some time after its disappearance. And even if there should not have been symptoms of inflammation, still, if the fever commenced with high excitement, and continues obstinately to resist the appropriate remedies, there is abundant ground for suspecting a degree of congestion closely allied to it; and a better plan of pushing it on to the next stage, than the exhibition of stimulants could not be devised.

The best practice, I believe, to be in such cases, to trust in a great measure to the *vis medicatrix nature*. I would give light nourishing food; such as chicken water, sago, tapioca, dry toast and weak tea, and whey made of equal parts of sweet milk and butter-milk. The bowels to be kept gently soluble, by injection or the mildest laxatives. In some cases where the prostration is

very great, and symptoms of inflammation have not been manifested, wine- whey may be tried in small quantities, and with great circumspection; watching closely its effects. These I will mention presently, in a notice I mean to take of this part of doctor Southwood Smith's valuable work.

The above, I am satisfied, is the only safe practice. In the state of uncertainty, in which we are, respecting the condition of the internal organs, it is best to be on the safe side. If there is no congestion or inflammation necessarily fatal, the stimulus and nourishment of light diet, with the healthy reaction of the powers of life, when relieved from the action of the poison, which oppressed and obstructed them in their operations, will bring on convalescence; and if there is inflammation or its sequela, it is not apparent, in what way exciting the action of the heart and arteries with wine or brandy, is to do any good. It is true, it may be said, that tonics and stimulants, will rouse and develop vital powers, which would not otherwise come into operation, and thus prevent the patient from sinking. But besides having scruples, as to their possession of this valuable quality, if there is inflammation, which we now know we always have sufficient ground for suspecting, until it can be proved that stimulants will excite the inflamed vessels, not only as much, but more, than they do the heart; and thus enable them by increased vital contraction, to send the blood out faster than it comes in, relieving themselves from distension: I shall consider them dangerous remedies, and be wary in their administration. I believe the heart, the great centre of the sanguiferous system, is excited by stimulants, in the ratio of its importance in the circulation, compared with the capillaries. We should thus obviously have an increase of the congestion and inflammation. The heart would send on the blood to the inflamed vessels, with accelerated velocity and augmented momentum; and their action, being but little, if at all greater, being also in a crippled condition, they must of necessity yield to the distending force, and return of the inflammation be the inevitable consequence. This I conceive to be a grave, if not unanswerable objection to the following passage of doctor S. Smith's work on fever.

"But instead of bleeding, the proper remedy may possibly be the reverse: it may be requisite to afford a stimulus. The change of structure produced by the inflammatory process, may not have proceeded to such an extent as to be absolutely incompatible with life; but the powers of life may be so exhausted by the inflammatory excitement, that unless aid be brought to them, they will be overpowered and sunk: afford them appropriate aid, and they will rally, and although slowly, ultimately repair the lesion

which the organs have sustained. This is precisely the condition, and perhaps the only condition, under which stimuli are rarely beneficial in fever. Whenever such remedies are indicated, the vascular action is weak, and there appears to be a want of due supply of arterial blood to the brain. Of all stimuli, wine or brandy is the best."

Doctor Smith, here refers to those cases of fever, in which there is no strongly marked symptoms at the commencement; "little or no pain of head, or only a small degree of giddiness; the skin but moderately warm; the pulse neither strong, nor bounding, nor hard; but of moderate strength, and soft; the mind tolerably distinct, and the restlessness not great," No active treatment is employed, and in a few days, typhus or adynamic symptoms are developed. The physician becomes alarmed, tries the lancet, and finds that it affords little or no relief to any of the symptoms, while it increases the debility. The lancet is therefore deemed worse than useless. It will be perceived, he supposes, that inflammation has been present, and has proceeded so far as to produce change of structure; but not to the extent to be absolutely incompatible with life. Now, I believe, that if the organization has undergone a change; if the membranes are thickened, and induration or softening, of either them or the parenchyma exists, the situation of the patient is most critical; and I do not believe any benefit is to be obtained from tonics or stimulants. The risk of aggravating the inflammation, more than counterbalances the prospect of relief. If the symptoms of inflammation, have not been strongly marked, it is a puzzling case; and here I regard the following remarks of doctor Smith, of such deep interest, that I shall offer no apology for quoting them.

"If it be doubtful whether a stimulus can be borne, or will prove beneficial, a few ounces of wine may be administered. It will soon be manifest whether it be the appropriate remedy. If the restlessness, the heat, the delirium increase under its use, it will be obvious, that it cannot be borne; if after some hours, no perceptible impression be made upon any symptom, it is seldom of the least service, given to any extent, or persevered in for any length of time. If it be capable of doing any good, some improvement in the symptoms is commonly perceptible in a few hours after it is first administered. Sometimes that improvement is sudden and most striking; more commonly it is slight and slow, but still easy to be seen. If the pulse become firmer, and especially slower, the tremor slighter, the delirium milder, the sleep sounder, the skin cooler, and above all, if the sensibility increase, and the strength improve, it is then the anchor of hope. It will save the

patient if it be not pushed too far, and if it be withdrawn, as soon as excitement is reproduced, should that happen, which it often does.

No certain indication for the administration of wine, can be drawn from one or two symptoms alone: neither from the state of the pulse, nor of the skin, nor of the tongue; neither from the tremor, nor the delirium. There is an aspect about the patient, an expression not in his countenance only, but in his attitude, in the manner in which he lies and moves, being in fact the general result, as well as the outward expression of the collective internal diseased states, that tell to the experienced eye, when it is probable that a stimulus will be useful. Depression, loss of energy in the vascular system, as well as in the nervous and sensorial, indicated by a feeble, quick and easily compressed pulse, no less than by general prostration, afford the most certain indications, that the exhibition of wine will be advantageous: and if the skin be at the same time cool and perspiring, the tongue tremulous, moist or not very dry, and the delirium consist of low muttering incoherence, these symptoms will afford so many additional reasons to hope that it will prove useful. On the contrary, if the skin be hot, the eye fierce or wild, the delirium loud, noisy, requiring restraint, and the general motions violent, it is as absurd to give wine, as to pour oil upon a half extinguished fire, with the view of putting out the yet burning embers.

When wine is indicated, but does not produce a decided effect, brandy may be substituted. I have seen no benefit arise from giving either, in large quantities. When the condition is really present, in which alone it can be useful, a moderate quantity will accomplish the only purpose it can serve. In every other condition, wine may be administered to any extent, (and I have given half a pint every hour,) until the stomach return it, by vomiting, without the slightest impression being made upon the disease, or any, or scarcely any, upon the system. The malady is in possession of the seat of sensibility; it has destroyed the organ; it has abolished the function; what advantage can result from the application of stimuli? Organs destroyed by over-stimulation, cannot be regenerated by the application of additional stimuli."

The greater part of the foregoing paragraphs, I regard as of inestimable value; and should be ever present to the recollection, during the progress of a case of fever. There is another very important point which should be borne in mind; the distinction between primary or idiopathic typhus, and secondary or symptomatic typhus fever. In the former, the prostration is great from the beginning of the disease, or very near it, and is caused by the exceeding virulence of the poison, compared with the powers of the patient to resist its effects. In the latter, the ty-



phoid symptoms make their appearance during the progress of the fever; and depend upon inflammation more or less intense, of some one or more of the vital organs.

In those forms of fever which approach nearest to the genuine typhus of Cullen, the action of the heart is feeble; and inflammation is therefore not so common. There is no doubt, however, but that the congestion is in many cases greater than would be necessary, to constitute active inflammation, if the sensibility and irritability of the system were not greatly diminished. The vessels will endure great distension without pain being produced, neither do they make great efforts to relieve themselves; and hence effusions of serum, lymph, and change of structure do not so speedily ensue. The prominent symptoms are, excessive prostration of the vital powers, and diminution of sensibility.—The heart is also probably more weakened than the capillaries. Under these circumstances, the ordinary stimuli, such as light, heat, food, &c. do not act with sufficient power to sustain life; some extraordinary stimulus is therefore required; and it is astonishing, in this state of diminished sensibility, what large quantities of brandy may be exhibited with but little effect; indeed, it is more than probable, that a small portion would answer just as well; the absorbents not having power to take up more than a given quantity, the remainder passes into the bowels, mixes with the vitiated secretions, and is changed in property. In addition to their imperfect action, the absorbents are obstructed by the thick coating of vitiated secretion, which lines the whole alimentary canal. In such cases, alcohol is unquestionably useful; but it does not produce that high, evanescent excitement, which follows its exhibition, where the sensibility is near the natural standard; on the contrary, in this peculiar condition of the vital powers, the most energetic and diffusible stimulants, exert no greater power than mild tonics do under ordinary states of sensibility; they are, in fact, the appropriate tonics for such cases. They certainly also must excite the congested capillaries, in at least an equal ratio with the heart; by which means, as the general tone of the system returns, they relieve themselves from the unnatural quantity of blood which had found entrance into them.

The greatest caution is required even in these cases, not to continue the stimulant longer than is absolutely necessary to rouse the dormant sensibility. There is great danger of elevating the action of the heart so high, that the state of congestion may be changed to active inflammation. Whenever the tendency to sinking is clearly arrested, the patient should be entrusted to gentle treatment; moderate purging, with calomel and castor oil,

or neutral salts; blisters to excite the surface, and relieve the congested organs, and light nourishment.

The above, it will be perceived, is a state of things entirely different from that secondary or symptomatic typhus, which proceeds from inflammation, with more or less disorganization of some of the vital organs, and the immense importance of discriminating between them, is apparent at a single glance. It is of so much more importance from the fact, that the secondary is much more common, in this country, than the primary; if it is true, as I believe, that in all these cases, stimulants are positively injurious. Even inflammation of the brain, does not in its progress, cause so great depression of the vital powers of the heart, as the concentrated malaria, which produces primary typhus fever; and inflammation of the other vital organs, does not affect sensibility of the heart to the impressions of stimuli, in any great degree, till near the termination of life; or not until disorganization has proceeded to that extent, that it is in vain to expect benefit from stimulants or any thing else.

I am very apprehensive, that typhus fever is a bug bear in the eyes of many of our physicians; and is the cause of many persons being stimulated to a premature grave. I know of a gentleman, a little above thirty, one of the most athletic men I have seen, who was attacked with a chill, followed by a high fever, in Frederick county, of this state. A physician was sent for, who arrived at the height of the first hot stage. He was going to prescribe a calomel bolus; but the patient insisted upon being bled; "his father, an eminent physician, always bled, he said, in the beginning of bilious fever." The physician at first refused, from fear of typhus; but at length, on being urged, reluctantly consented; abstracted sixteen or twenty ounces of blood, with great relief to the pain of head. The attack proved to be gentle, the fever soon becoming intermittent; but that could not be certainly foreseen, and there was the less cause to be afraid of typhus. The physician was a man of long practice, and high character. Many persons, in the prime and vigor of life, I know, have to fight a terrible battle with death, presenting himself in the form of bilious fever, and too frequently are compelled to succumb; no other treatment being practised than calomel, often carried to the extent to produce salivation, with neutral salts and other purgatives, antimonials, and blisters; the main remedy, the lancet, not employed, from dread of typhus; and when secondary typhus did make its appearance, from the local inflammation set up during the previous high excitement, wine and brandy were poured down in quantities, which soon sealed the fate of the unfortunate patient.

I was at a loss for some time, to trace the above practice to its origin. Doctor Rush was not afraid of the lancet in our summer and autumnal diseases. On the contrary, he was the author of the practice of free depletion. New light, no doubt, has been thrown on the subject by subsequent inquirers; but he has the immortal honor of having laid the foundation. I believe the practice to be a remnant of the systems of Cullen and Brown; combined with the absence of accurate information, relating to the distinctions between primary and secondary typhus.

Believing, as I do, that our malarious fevers, are at the commencement, decidedly inflammatory, in a very large majority of cases, and that the appropriate treatment, is prompt and energetic depletion with the lancet, according to the strength of the patient's constitution, and the violence of the attack, I must, nevertheless, caution my younger brethren not to do too much. This is the rock on which young practitioners are not unfrequently wrecked; and, which is worse, their patients also. They have unbounded confidence in the omnipotence of their remedies; and are desirous of kicking the *vis medicatrix naturæ* out of doors. They are exceedingly anxious to cure their patients, and easily alarmed if unexpected and threatening symptoms present themselves. They are very apt therefore to push all their remedies to extremes; and hence, bleed and purge more than sufficient at the beginning; although this is a mistake not so often committed, owing to their dread of debility; and it is certainly the safe side to err upon. Febrifuge powders and mixtures, are also given in large quantity; respecting which, my experience coincides with that of doctor S. Smith, that they are wholly inefficacious. But here antimony must be excepted; its power of controlling to a certain extent, the action of the heart, makes it a powerful adjuvant of the lancet; and doctor Smith has found it more especially valuable, in the severe bronchitis which occasionally accompanies fever. Bloodletting in this variety, had but little effect upon the local disease; but two grains of tartar emetic, dissolved in an ounce of water, and repeated every second, third, fourth, or sixth hour according to the severity of the case, surpassed his expectations. It is in the administration of tonics and stimulants, that giving too large and too frequent doses is particularly dangerous. Even in those cases where they are the proper remedies, pushing them too far, will excite inflammation. The best practice, undoubtedly is, after the period of energetic treatment has passed, to proceed with caution: carefully watching the symptoms; and trusting in a very great degree, to the powers of the system, for healthful reaction.

Having had occasion to notice the able work of doctor S. Smith, in the course of this paper, I will refer before concluding

to two or three other peculiarities of his treatment. Speaking of purging, he says, "a due impression having been made upon the inflammation by bleeding, the subsequent treatment should consist of purgative medicines, given to the extent of producing three, or at most, four stools in the twenty-four hours: beyond that number, no advantage is obtained by purging; more frequent evacuations, indeed, weaken the patient, but not the disease. The best purgatives consist of one or two grains of calomel, with six or eight of rhubarb, repeated every night, or every other night, and followed the next morning by two drachms, or half an ounce "of castor oil, or by the common senna draught."

This practice may answer in London, but such doses of medicine will not suffice to carry off the vitiated secretions, and change the action of the secreting organs, in the bilious fevers of this country. Twenty grains of calomel, we consider the medium dose, for an adult of ordinary strength; followed by an ounce, or an ounce and an half of epsom salts next morning. At the same time, doctor Smith, is correct, when he says, that excessive purging only weakens the patient, without making any corresponding impression on the disease; this is emphatically true of neutral salts, and the other mild laxatives, which produce only watery evacuations; and appear not to have the least power in restoring the healthy action of the secreting vessels.

He recommends in the violent attacks of inflammation of the brain, what he calls the "cold dash," as much more powerful than pounded ice. "It consists of pouring a column of cold water upon the head in a continued stream, from a height of from six to ten feet. The patient is seated in a large tub; a table is placed at the side of the tub upon which a man stands, and at as great an elevation as his arm can reach, pours upon the naked head of the patient a steady but continued stream of cold or iced water, from a watering pot without the nose. The stream is made to fall as nearly as possible upon one, and the same spot. At first the elevation must be slight, for the shock is too violent if the stream be poured at once from the highest point." "Sooner or later, usually in from ten to twenty minutes, the heat, though most intense, disappears, the skin becomes cold, the face pallid, the features shrunk, while the pulse is reduced to a mere thread, and the pain of the head, however violent and intolerable, entirely ceases. After the patient has been wiped dry, which he should be as rapidly as possible, and placed in bed, the symptoms may soon return in all their violence; the same process will again remove them, and as often as the former recur, the latter must be repeated. Three or four repetitions will commonly suffice to subdue the most intense cerebral affection."

This remedy is on no account to supersede the lancet; it will assist materially in subduing the inflammation; and is particularly valuable after bleeding, has been pushed as far as it can be with safety, and the cerebral symptoms continue violent. When from the weakness of the patient it is not thought prudent to remove him from the bed, and apply the cold water to the whole body, the stream may be thrown upon the head, by raising the patient with his back to the edge of the bed, and making his head incline over an empty vessel.

Where the heat of surface is very great, cold and tepid sponging, were found to be highly beneficial. This is an adjuvant in the treatment of fever, the value of which, I suspect, is not sufficiently appreciated by most of our physicians.

Speaking of the abdominal affection, doctor Smith says, "no remedy at all comparable in efficacy, to the tartar emetic in the thoracic disease, has yet been discovered for the inflammation of the mucous membrane of the intestines, which forms so constant and formidable a part of the organic affection of fever. General bleeding has but little influence over the disease. If employed early, and with due activity, it will prevent the affection from occurring, but when once it has supervened, large bleedings are out of the question, and even small and repeated bleedings are not as effectual as leeches. In severe cases, the abdomen should be covered with leeches, and they should be reapplied daily, until the pain and tenderness on pressure are gone, or at least have become slight, for it is often impossible entirely to remove the tenderness. The abdomen should be covered with a poultice as soon as the leeches fall off. Afterwards the application of a linen rag, moistened constantly with the oleum terebinthinæ, keeps up the effect produced by the leeches, and when the affection is slight, may supersede their use altogether."

I am disposed to question the correctness of the opinion, that general bleeding has but little influence over inflammation of the mucous membrane of the intestines; the utility of leeches is however certain, after a judicious employment of the lancet. But in most situations, throughout our widely extended country, they cannot be procured; and I am therefore, the more desirous of directing the attention of the profession, to the application of the oleum terebinthinæ, which in union with the lancet, I believe will make their absence scarcely be felt. I heard it spoken of when I attended lectures in Edinburgh, ten years since, as an admirable remedy in puerperal peritonitis; and I have since frequently employed it, after bleeding, in the inflammatory affections of the abdomen, and always with very decided advantage. Its great superiority over the cantharides blister, is that we can avoid producing much vesication, and thus be

permitted to keep up the counter irritation, and determination to the surface, which are the chief sources of relief, the discharge from the application of a blister being of comparatively little use, during a much longer period. I have been in the habit of applying it warm, and when the pain was very severe, as it frequently is in peritonitis, as hot as the patient could bear, immediately after the first bleeding; having abstracted, of course, as much blood as the violence of the symptoms required, and the strength of the patient would justify. The objections to having it hot, are, that it causes so much burning and smarting, that it cannot be long endured, and it produces vesication, after some time. My directions are, when I have it applied hot, to keep it on as long as the patient can bear it, and when the burning subsides to re-apply it, if the internal pain continues. When put on moderately warm, it can be retained a long time; but it is obvious, that unless it excites the skin to inflammation it will do but little good. The difference in the sensibility of the skin of different individuals, should also be noticed, as some will bear it hotter than others. It very generally affords prompt relief from the internal pain; and in many cases will prevent the necessity for a repetition of the bloodletting. I have never found it requisite, to postpone its application, until I shall have bled my patient down to the blistering point, according to the doctrine of some. I believe that the removal of the local pain, which is exciting the heart and producing fever, is of immense importance; I therefore, apply it immediately after the first and efficient bleeding; and do not remember of having been disappointed in affording more or less relief to my patient. It may be necessary to repeat the bleeding; but the irritation of the skin with the *oleum terebinthinæ* should be continued, and I am satisfied, that the mitigation of the internal pain, will far more than counter-balance, any injurious effects which might be feared from the inflammation of the surface. The heart being acted upon by the dreadful internal irritation, in all probability does not feel the slight pricking of the skin.

I have never tried the oil in any of the thoracic affections; but should expect it to be well adapted to pleuritis.

**ART. X.—Case of Cæsarean operation, taken from the *Edinburgh Journal*, for April, 1831, with some remarks.**

**Ann M.**—æt. 26, of a healthy aspect, and apparently well formed, was seized with labor-pains, for the first time, on the evening of Sunday, the 27th September, 1829. She was on Monday morning, visited by Mr. Maclurkan, surgeon, who found on examination the principal part of the left side of the pelvis, occupied by what appeared to be a large exostosis, filling up the hollow of the sacrum, and extending from this bone forward to within about a quarter of an inch of the left ramus of the pubis. The greatest space afforded for the passage, of the fetus, (which was found with the hand presenting,) was on the right side of the pelvis, i. e. between the tumor and right brim; and here the diameter at its widest part was computed at from  $1\frac{1}{2}$  to  $1\frac{3}{4}$  inch, becoming gradually narrower as it approached the sacrum on one side, or pubis on the other; the long diameter, from pubis to right sacro-iliac synchondrosis, was calculated at  $3\frac{1}{2}$  to 4 inches. Considering delivery difficult, if not impossible, per vias naturales, Mr. Maclurkan, availed himself of the advice of Drs. McDonnell, and Thompson, both experienced accoucheurs, who fully concurred with him in opinion, that embryulcia was impracticable. The patient being in indigent circumstances, was sent into the hospital at eight o'clock on Tuesday evening, when, on a further consultation of the officers of the institution with some of the most experienced surgeons and accoucheurs of the town, the Cæsarean section was determined on, and the following were the principal reasons which led to such a decision.

1st. The consideration of the dimensions above mentioned.

2dly. Although a mutilated child might, by possibility, be dragged through such an aperture, the violence which must necessarily be employed, and the protracted exertions, would endanger the life of the woman, as much as the Cæsarean operation, and be attended with the certain destruction of the child.

3dly. Although the motion of the child had not been felt since eleven o'clock A. M. (Tuesday,) and some meconium had passed, which rendered it probable the child was dead, yet these signs being fallacious, and no direct evidence existing of its death, it was thought advisable to attempt to save it by the Cæsarean section, as the life of the mother did not seem to be placed in greater jeopardy, by it than by embryulcia, under such unfavorable circumstances.

Accordingly, at a quarter to eleven o'clock, P. M. doctor McKibbin, surgeon to the hospital, commenced the operation, assisted by his colleagues, and in presence of several medical gen-

tlemen. The bladder having been previously emptied, the patient was placed on a firm mattress on her back, with her shoulders slightly elevated. An incision of about seven inches in length was made through the skin and cellular substance, (commencing about two inches above the umbilicus, and an inch to the left side of it,) in the direction of the linea alba. The sheaths of the rectus being laid bare, and the muscle being exposed, the whole length of the wound, a small opening was scratched through it at the upper part of the incision, and a probe-pointed bistoury introduced; the fingers being used as a director, the rectus was divided the whole length of the external wound, bringing the body of the uterus into view, no intestine intervening. Having ascertained the situation of the placenta, which was at the fundus, an incision of about five inches in length was made into the uterus, (beginning about one-third from the fundus, immediately under the placenta,) which exposed the fetus, enveloped by the membranes; a little gentle pressure on either side of the abdominal parietes ruptured them, and the fetus was easily removed. The placenta being detached, was also extracted, and the uterus immediately contracted to the usual size after delivery. The hemorrhage was trifling, not more than 6 or 8 ounces of blood being lost during the operation, which the patient bore with great fortitude; and as the uterus subsided into the pelvic cavity, a considerable portion of intestine, distended with flatus escaped by a wound, which occasioned some delay, and required a good deal of management to replace and retain in situ. The edges of the wound were approximated, and kept in contact by six sutures, assisted by adhesive straps, and a compress and bandage applied over all.

Nausea, and some vomiting occurred immediately after the operation; the pulse was 120, and regular. Three grains of solid opium were administered, and directed to be repeated if rejected by vomiting; the effervescing draught was also directed to be given at intervals, while the nausea continued. At twelve o'clock the pulse had subsided to 108, soft, full, and regular; and the patient complained merely of soreness in the situation of the wound. She was closely watched during the night, and an accurate report of symptoms taken every hour. But, without dwelling on particulars, it may be sufficient to observe, that great restlessness prevailed throughout, and, notwithstanding the repetition of the opium pill, and the frequent administration of the effervescing draught, she vomited occasionally the whey given to allay her thirst, which was excessive. She complained at times of an oppressive sense of distension in the epigastrium, which was much relieved by the occasional discharge of flatus by the mouth. Some slight oozing of a sero-sanguineous character



took place from the wound; and her pulse fell gradually to 96, full, soft, and regular. This was the state of the pulse at half past four o'clock A. M. (Wednesday,) at five o'clock, it had risen to 100; and she now complained of a dragging, or "drawing in sensation" about the epigastrium, not amounting, however, to acute pain.

9 o'clock A. M. (Wednesday,) pulse 108, sharp; some trifling sanguineous discharge from the vagina; ten ounces of high-colored urine drawn off by the catheter. As she complained of some uneasiness in the lower part of the abdomen, and her bowels had not been opened since the operation, fomentations were directed to be applied, and a common enema administered immediately.

11 o'clock A. M.—Some low delirium since last visit, which continues. Four injections have been administered without any effect; pulse 120, small and weak; countenance rather sunk; abdomen tender and tense; occasional vomiting; no reaction or heat of surface.

Dr. McKibbin, on consulting with his colleagues, concluded that the lancet was inadmissible. Fomentations were continued, and the following ordered:

R Ext. Colocynth. Comp. Hydrarg. Submur. aa. gr. iij.

M. ft. pilula statim sumenda, et repetatur  
singulis horis donec alvus responderit.

2 o'clock P. M.—Has been a sleep since last report, and the pills have consequently not been given; had one copious evacuation of the fluid feces passed involuntarily. Sleep appears to approach coma; eyes partially open, and teeth rather firmly closed. With some difficulty, a little fluid was introduced into the mouth, which she made no effort to swallow; it gurgled a short time in her throat, and immediately was followed by a convulsive action of the muscles of the face, which extended to those of the neck, and eventually the extremities were rather violently convulsed for about two minutes. The right side was principally effected. She appears evidently sinking, no rallying effort being evinced. Abdomen still tender and tense; pulse varying from 108 to 130, very irregular and weak. Fomentations continued. From this time she became gradually worse, the convulsions recurring with increase of coma; and she expired at four o'clock P. M. seventeen hours after the operation.

Inspection sixteen hours after death.—On removing the sutures, considerable adhesion of the cellular membrane was found to have taken place, and the intestines were much distended with gas. There had been no secondary hemorrhage. The uterus had contracted to rather more than the size of a shut hand; its parietes were from an inch and a quarter, to an inch

and a half in thickness, and the cut surface was covered with a thin layer of coagulated blood. The outer edges of the incision made into the uterus, were considerably separated by the contraction of the circular fibres, so that it gaped very much; the inside of the incision being in contact, and the outer edges asunder thus, V; leaving a surface of from  $2\frac{1}{2}$  to 3 inches, which during the healing process would discharge its contents into the abdomen more readily than into the uterus. To prevent such an occurrence in future, doctor McKibbin, thinks that the introduction of two sutures into the cut uterus would be serviceable in keeping the outer edges of the wound in apposition, and directing the discharges to their natural passages; and that more irritation would be thus removed than would be occasioned by two ligatures cut close, and allowed to remain.\* Some small specks rather redder than natural, were observed on the surface of the intestines, and a slight blush of redness on the peritoneum, covering the uterus, extending about half an inch on either side of the incision.

**Head.**—The external surface of the dura mater healthy, between the dura mater and arachnoid, on the right hemisphere, about an ounce and a half of serum was effused. The vessels on the surface of the right hemisphere were more turgid than those on the left. The rest of the brain and cerebellum were healthy.

**Thorax.**—With the exception of some old adhesions of both lungs, at the upper part of the pleura costalis, the viscera were healthy.

The pelvis being obtained and divested of soft parts, was found to be well formed, and of usual dimensions. The whole of its

\* It is very questionable whether any advantage could be derived from the application of sutures as here proposed. The greater separation of the outer edge of the wound than the inner, must arise from the thickness of the walls of the uterus. Such being the case, there will be much the greatest degree of pressure on the ligature at the outer edge of the wound, so that, it will cut through, or press so strongly upon the outer parts, as to cause great irritation. The fact of the frequent success attending this operation on the continent of Europe, would seem to show that there is no necessity for this measure.

If there is any advantage to be obtained in some particular cases, from the use of sutures, we would advise that the sutures be carried but a little way into the substance of the outer edge of the wound. And, above all things, we should give preference to the animal ligature—this we know, from much experience, will occasion much less irritation than thread; and will be absorbed by the time the wound is closed. We have seen such important advantages from the animal ligature: and have seen the same so fully verified, by the reports of some few surgeons in Europe, who use this ligature, that we cannot withhold our profound astonishment at seeing this subject so much neglected.

sacral portion, however, (with the exception of the first, and part of the second bone) was enveloped as it were by a large exostosis, of a conical form, which extended anteriorly into the pelvis, diminishing its cavity considerably, and posteriorly for an inch or more beyond the spinous processes. The os coccygis projected from the inferior part of the tumor, and that portion of the latter which extended into the pelvis was smooth in some parts, rough in others, and intersected by two or three superficial fissures; the portion covering the posterior part of the sacrum, presented an irregular scabrous surface. The following measurements were taken.

The antero-posterior, diameter 4 inches; lateral diameter 5 3-8 inches; diagonal diameter 5 inches; long diameter of outlet, (from symphysis to coccyx) 4 inches; transverse diameter (from ischium to ischium,) 4 1-8 inches; from the apex of the tumor of the lower part of the symphysis 1 1-8 inch; from the brim of the pelvis on the right side (immediately over the foramen thyroideum,) to the lateral surface of the tumor as its widest part, 1 1-2 inch, more posteriorly 1 1-2 inch; long diameter of the aperture from right sacro-iliac synchondrosis to symphysis pubis, 3 3-4 inches. From the left brim to the surface of the tumor on that side 1 1-8 inch at its widest part, but decreases considerably as it approaches the sacrum.

The fetus was a female plump, firm, and healthy looking, but had evidently been dead some time previous to its removal from the uterus. The usual means were employed to animation, without avail. It weighed 5 lb. 4 oz. avoirdupois.

The long diameter of the head, (from vertex to chin) 4 1-2 inches.

From ear to ear, - - - - - 3 inches.

From one parietal protuberance to the other, - 3 1-4 inches.

Circumference of the head at the widest part, 13 inches.

The operation occupied about twenty minutes, and was performed with great neatness, dexterity, and coolness.

That the Cæsarean section was in this case imperatively called for will be admitted by every one who reflects on the space afforded for the passage of the fetus. Let it be remembered, that the dimensions above mentioned, were taken when the pelvis was completely divested of soft parts; and when we consider the space occupied by the latter, it will be evident that the aperture between the right brim and tumor must have been still farther diminished.

The result, which was unsuccessful, adds another to the many fatal cases recorded by British practitioners. The perusal of these cases would be sufficient to deter the rising generation of the profession in these countries from ever attempting a repetition of this operation, even in the most desperate circumstances,

were they not influenced by the labors of their continental brethren, who may be said to be generally successful. What then, is the cause of the fatality so universally attendant, I might say, on hysterotomy, when performed on this side of the channel? Is it in climate or constitution? No. This opinion was many years ago disproved by doctor Hull, who was disposed to consider delay as the great source of the mischief. In this conclusion, I entirely agree with him, from perusing most of the successful cases on record, as well as those of an opposite description. Though I admit, that our neighbors perform the *Cæsarean section*, in cases where British practitioners would have recourse to *embryulcia* with every prospect of success; on the other hand, it must be confessed, that much valuable time is frequently wasted by the profession here in discussion, about an eighth, a quarter, or half an inch of space, while the labor is in the meantime proceeding, and the patient's strength becomes so far exhausted, or inflammation makes such progress before a decision is formed, as to leave little hope of successful termination. The longer the measure is delayed, the life of the fetus is the more endangered.

I do not say that in most cases the *Cæsarean section* should be preferred to *embryulcia*. I merely wish to advocate the early adoption of the former in all doubtful cases; that is, where uncertainty prevails as to the practicability of *embryulcia*, and where perhaps, no two men agree as to the actual space afforded. In these cases, in which the measurements must be in a great measure conjectural, as no accurate pelvimeter has been obtained, I would urge its early adoption, and decided superiority to *embryulcia*. In short, where I was not justly satisfied, that a passage existed for a full grown fetus, of two inches in the short diameter, and three and a half inches in length, I should be inclined to adopt the *Cæsarean operation* in preference to *embryulcia*. Cases, I am aware, are recorded, and on high authority too, where *embryulcia* is stated to have been performed with success under still more unfavorable circumstances; but, as no inspection has been adduced to verify these assertions, we may, I think, be permitted to question the accuracy of the stated measurements. I do not find these facts much in favor of *embryulcia*, performed under the circumstances to which I have before alluded, and therefore am not disposed to place unlimited confidence in the statements of individuals, however high their standing may be in the profession. That the destruction of the fetus may be accomplished effectually, I admit; but the records of medicine attest, that the prolonged and powerful exertions required in contracted or deformed *pelvis* to effect *embryulcia*, have in the

ART. XI.—*Case of abdominal abscess, terminating in a fistulous affection over the stomach, and eventual escape of matter through the diaphragm, lungs, and trachea.* By HORATIO G. JAMESON, M. D.

Mr. Joseph Steuart, a young man about twenty-one or two years of age, who was of an athletic form, and a black smith by trade, injured himself by a severe job of drilling iron; after some days of severe labor, with the pressure of the drilling instrument, he felt pain on the left margin of the epigastrium. The pain increasing, fever supervened, and he was extremely ill for some weeks. An abscess formed over the stomach, about three or four inches above the umbilicus, two or three inches to the left of the linea alba; at least this was about the point at which the abscess pointed, and was opened. We do not recollect, now, however, whether it broke, or whether our friend doctor McIlhane, whose patient he was, opened it with a lancet.

The discharge continued for some months without much alteration, except that the patient gradually grew weaker, and was affected with copious night sweats, hectic pulse, and severe cough. Doctor McIlhane, who had treated the case judiciously, so soon as he became convinced of the fistulous nature of the sore, advised the patient to avail himself of my surgical attentions.

After some little preparatory treatment, which I deemed requisite for subduing the severity of febrile symptoms, which were probably increased by the removal of the patient, a distance of nine or ten miles, I purposed performing an operation. At this time the discharge was pretty copious, from a small roundish opening of a fistulous aspect, into this opening a probe could be introduced, and passed up between the stomach and abdominal walls, inclining obliquely upwards, and inward or backwards towards the diaphragm.

In performing the operation, I passed a director into the opening, and on this run along the button pointed bistoury in the usual way, so as to split open the abdominal wall, nearly three inches, having proceeded thus far, and then examined the parts, I found that the incision did not reach the main sack or deposit of pus, this lay down too deep between the stomach and diaphragm to admit of my reaching it—nor, indeed, could any thing further be done, with a view of dividing indurated parts. I, therefore, contented myself, by filling the sac and outward part of the incision with lint.

I had now a wound of nearly three inches through the abdominal muscles and peritoneum, with a fistulous tract, leading obli-

quely down, above the stomach and between it and the diaphragm—the posterior part of which tract was formed of the outer surface of the stomach, and the walls of the deep seated abscess made of the stomach and diaphragm; but whether the matter lodged on the back of the trunk, I could not determine.

This wound was kept open for several weeks by means of lint, and the sac injected with different articles of a slightly detergent nature—sometimes with lime water, lime water and milk, &c. Notwithstanding, my endeavours to keep the entrance of the wound open, till granulations could be procured from the sac, it gradually closed, so that, at length, we were compelled to depend upon sponge tents for the purpose of keeping up an opening sufficient to give free escape to the matter. Several weeks after the operation the opening ceased to give vent to the discharge, although the sponge tents were applied as before. In a day or two, the patient became feverish, suffered severe pain, and great aggravation of the cough. After a few days suffering, he was suddenly attacked with a cough, threatening suffocation; and threw up great quantities of pure pus. The cough and discharge from the mouth continued several days, during which time the discharge from the external wound disappeared entirely, but fearing to let the outer opening close, lest there might be a new collection which would give rise to much irritation before it could find an exit, I took care to keep a sponge tent introduced. All at once, the matter found its way to the external opening, and the discharge through the lungs ceased entirely—the cough and fever abated greatly, so much, indeed, that the patient could now walk about, but could not straighten himself. This circumstance had long existed, and continued, until all irritation had disappeared, after which he soon recovered his fine erect tall form.

This state of things continued for several weeks, the matter changed from one opening to the other, once in two or three weeks, the discharges from the external wound were, however, of longer duration, than those by the mouth. At each renewal of the discharge, by the trachea, he suffered considerable fever with extremely violent cough amounting often almost to suffocation. During this condition the tent was continued so long as any signs of an abscess or ulcer continued; and the sore for some weeks before recovery was injected with lime water and milk.

The constitutional symptoms were combatted with the occasional use of mild purgatives, antimonial, mucilaginous medicines, anodynes, especially Dover's powder, with an equal quantity of nitrate of potash; and the pretty free exhibition of kinine, and yellow bark.

We have had the pleasure of seeing this young man several times during the last two months, and learnt of him, that not a vestige of disease is left behind. Whether he has resumed his trade, or confines his attention to farming we know not. It will be admitted, we presume, that there is very few cases of more interest on record, than the one before us. Its pathology is, however, no less extraordinary than its termination interesting to the philanthropic professor of the healing art.

It is sufficiently remarkable, that, a very considerable abscess should form between the diaphragm and the stomach, find its way forward, and thus give the true indication to the surgeon's knife—and it is no less a phenomenon, that after all the ravages produced, both local and constitutional, that still the patient could survive a breach through the diaphragm, the pleura pulmonalis, the substance of the lungs, and the matter afterwards get into the bronchial capillaries, and find exit at the opening of the trachea.

How could the stomach perform its function, disturbed with so much disease on its outer surface, the matter perforate the midriff, and creep into the bronchial vessels. But this admirable assemblage of phenomena does not terminate here. The matter having found a free exit through the lungs; while nothing was done to interrupt its flow, suddenly, and without any visible cause, turns back upon the old outlet, and pours out there; and, again as it were, capriciously, seeks the passage through the lungs—and still during all this play, like the flow and ebb of the tide, kind nature is gradually repairing *both breaches*; nor did her operations cease, till all disease was removed, and my patient left with an appearance of youthful vigor.

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ART. XII.—*Observations on medical jurisprudence, in which some important facts and experiments are related, in reference to the effects of burns, upon dead and living animal bodies, &c. &c.*

We are persuaded, that in the widest range of medical lore, there is no subject so much neglected by the profession of this country, whatever may be the fact in others, as that of forensic medicine; and, yet, no sensible man, to say nothing of professional men, can be insensible to the vast importance of this highly interesting part of the science of medicine; and, notwithstanding this neglect, the works of Orfila, Beck, Christison, and many others, to which we may presently add the extensive work

of doctor Marx, show most satisfactorily, that, of the branches of medical learning, directly applicable to practice, there is no one which admits of so much fixed principle, as does this branch.

Nor shall we be unmindful of the fact, that in addition to the immediately clinical application of our knowledge, there is another momentous consideration, which gives to this matter a degree of importance, that is alike useful and creditable to our ranks, in cases of public criminal prosecutions, where almost every thing may rest upon the testimony of physicians.

There is no situation in life, in which the physician stands so peculiarly and strikingly pre-eminent, as when before a learned court, and a sensible jury, he can prove, by a train of unerring circumstances, that, certain events, as dark and unsatisfactory to men of general learning, as they are to the surrounding crowd, are the result of certain chemical agents, &c. and which were employed in an act of murder. Yet, every man of sense must shudder at the thought, of attempting to explain such cases, without the most decided confidence in himself, and his methods of investigation. That many cases admit of the clearest illustration is well known, and, hence, while the responsibility is great, our knowledge will always serve to teach us where we may be confident, and where we can but conjecture. But let us look at the opposite, a physician, is called into court to unravel a seeming mystery, and by his ignorance gives greater uncertainty to minds already in difficulty and doubt; here the most intrepid will be abashed. We shall commence our reflections on this subject, with the following interesting paper, from the April number of the Edinburgh Journal.

"Trials for murder, where the chief question was, Whether the deceased individuals were burnt to death, or were murdered before the bodies were burnt? Experimental inquiry into the criterions for distinguishing burns, according as they are inflicted before or after death.

The two trials with which I shall introduce the second part of this communication, happened some years ago in Scotland. In each, the prisoner was accused of having murdered his wife, and burnt the body afterwards to conceal the murder. The following abstract is drawn up from the notes of doctor Duncan, and chiefly in his own words.

1. The first was the case of a man Gilchrist, who was condemned and executed. This case happened at Glasgow.

The prisoner and his wife lived on tolerably good terms, but used to take fits of rambling, and get drunk for days together. At last on one of these occasions, after their return home in the evening, the people who lived on the floor above them heard a



noise like that of two persons struggling, and soon afterwards a rattling or gurgling and moaning, as of one choking or bleeding to death. They so strongly suspected all was not right, that they called down to Gilchrist through the floor, that they were afraid he was killing his wife. In no long time, they were farther alarmed by the smell of fire and the filling of the house with smoke: upon which they went down to Gilchrist's apartments, and demanded admission. After some delay he admitted them, and in doing so, appeared to them to have come out of an inner room, where he said he had been asleep in bed. On letting them in he stumbled over the body of his wife, who lay in the outer apartment, quite dead, kneeling before a chair, and very much burnt.

In these circumstances, the prisoner was accused of having murdered her, and then burnt the body to conceal the manner of death; while, on the contrary, he alleged he had gone to bed tired, and knew nothing of what had befallen her till he was awakened by his neighbors, and that he presumed her clothes had caught fire while she was intoxicated, and burnt her to death.

"Unfortunately," observes doctor Duncan in his notes, "there were no data to decide this question. The medical gentlemen who had been appointed to examine the body, merely reported that they found the body so much burnt, that they could learn nothing from it as to the cause of death. The general evidence was all against the prisoner. He was accordingly condemned, although the precise manner of his wife's death was not proved even presumptively; and the sentence was put in execution; but to the very last, he vehemently and solemnly denied that he was guilty."

"The case," adds doctor Duncan, "made a great impression on me at the time, and led me to reflect deeply on the deficiency of the medical evidence, and the points to which the attention of the examiners should have been chiefly turned. It appears to me that the principal question might have been determined, by examining carefully the edges of the parts. It appeared to me that if the woman had been burnt to death, marks of vital reaction would have been seen around the burns; that the margin of these would have been limited and defined; and that any blisters which might have been present would have contained serum; but that if the body had not been burnt till after death, there would have been no inflammation around the burn, the effects of fire on the internal parts would have been undefined, and the blisters have contained only air."

2. It is singular that within a year, doctor Duncan had an opportunity of applying these views in a similar judicial case, which occurred at Leith.

The general evidence was of the same nature as in the case of Gilchrist, but even stronger against the prisoner. He lived on bad terms with his wife. On the evening of her death, she returned home at a late hour with a lighted candle, after getting some whiskey at a neighbor's. At the time the prisoner was in bed; but some time afterwards there was heard a considerable noise, like that of struggling, and of chairs pushed up and down the room; and after this, the man was heard in an adjoining bed-room, endeavoring to quiet his child, who was crying.

Presently the neighbors were alarmed by a strong smell of fire proceeding from the prisoner's apartments. They therefore knocked at his door for admission; but in vain: All the noise they could make did not bring him to the door. At last a man forced his way in by breaking the window of the outer room. On entering, he found the room full of smoke, and observed something burning red in a corner, over which he instantly threw a pitcher of water, and which proved to be the body of the woman burning on the hearth. Several persons now entered the inner room, where they found the prisoner either asleep or feigning to be so. On being roused and told of his wife's death, he expressed neither surprise nor sorrow, but coolly demanded by what authority his neighbors broke into his house, and threatened to send for a constable to commit them. Under such circumstances, the presumption of his having been accessory to his wife's death was strong.

The dead body was examined under the sheriff's warrant, and doctor Duncan was present. "We found," says he, "some parts of the body, especially the belly, burnt to a cinder. It was not there we could expect to find any proof, whether the burning had been before or after death: the action of the fire had been too violent. We then examined the parts on which it had acted more moderately, namely, the face and extremities; and here we discovered what we were unanimous in considering to be incontestable proof that the woman had been burnt to death, that she had been set fire to while alive, and had died in consequence of the burning. There was every mark of vital reaction: some spots merely red and inflamed, others scorched to a hard, transparent crust, but surrounded with distinct redness, and a great many blisters filled with lymph, perfectly different from those produced on the dead body, which are not filled with a fluid, but with air or vapor. In short, we found appearances exactly similar to those of fire on a living body; and therefore we reported as our unanimous opinion, that the deceased was burnt to death."

As there was no proof that the prisoner had set fire to her, he was not found guilty; but in consequence of the extremely sus-

picious nature of the general evidence, and especially the circumstance of the man apparently pretending to sleep, in defiance of his neighbors attempts to awaken him with loud knocking,—the jury returned the intermediate verdict of not proven. The last fact was considered very suspicious by all present and by doctor Duncan among the rest, who admitted that he could give no explanation of the apparent difficulty of awaking a man who had been broad awake but a few minutes before.

He considered, however, that the whole apparently discordant evidence, might be reconciled by supposing that the woman's clothes caught fire accidentally, and that the husband, thinking this a convenient mode of getting rid of his wife, took no steps to save her.

"However that may be," continues doctor Duncan, "I think it positively certain that in the last case and probably also in the first, the woman was burnt to death. One circumstance worthy of particular notice occurred to both; I allude to the violent and destructive action of the fire, compared with the small quantity of combustible matter consumed. In both cases these unfortunate women were burnt to death, and their bodies deeply scorched by their clothes alone; for in neither was there any trace of burning in the house or furniture. I examined the last case on the spot. The woman was found on the hearth with part of her clothes unburnt, and a chair from which she had fallen quite entire. She was dead when the neighbors entered, and in the dark the body was discovered by a red light issuing from it."

*Observations.*—This interesting narrative gives rise to various reflections. In the first place, I think it is extremely difficult to avoid the conclusion, that the body was in that singular state in which it is apt to undergo spontaneous combustion; or I should rather say, to be preternaturally combustible. It is difficult to explain otherwise, the great extent of the burn which was inflicted.—Secondly, although the subsequent experiments will show that doctor Duncan was perfectly right in his opinion, and the grounds on which he rested it, an important question arises, and was indeed very ingeniously started by the Crown council at the trial, in reference to the opinion that the woman was burnt to death—whether the redness and blisters remarked on the edge of the scorched parts might not have arisen, immediately after strangling or some other cause of death than burning, during the period when a lingering vitality remains in the body, and when undoubtedly certain phenomena of a vital nature are frequently observed. The medical witnesses at the trial, admitted that the question could not be answered decisively, on account of the want of the necessary facts, but that they did not consider it at all probable that blisters at least could be produced even after

death. It will be seen presently, that they were right in regard to both blisters and redness.—Thirdly, as to the prisoner not being awakened by the noise of his neighbors, which even doctor Duncan was disposed to consider suspicious, I have to observe, that from what has come under my own observation, this circumstance cannot be considered evidence against the man. Those who have not had their attention called accidentally to the matter, will scarcely believe how profoundly some persons sleep, more especially working people after their day's labor is over. I have met with an instance where the loudest noise I could make at a door and window, close to the bed, where the sleeper lay did not rouse him; and a boy of my acquaintance, after a long excursion one day, not only slept out all the noise his family could make at his bed-room door, which he had locked inside, but literally continued to sleep, till his father, in a state of alarm, cut out a pannel of the door with an axe, and entering the room shook him by the shoulders.

In an inquiry into the criterions by which a burn inflicted during life, may be distinguished from one after death, the following considerations must be kept in view. 1. What are the phenomena of vital reaction, which appear immediately after the infliction of a burn during life, and remain after death? 2. Do these phenomena appear in every instance of severe burning, even when the person survives but a few minutes, or a single minute? 3. Can they be produced or imitated by any of the effects of burning produced immediately after life is extinct? Such, are the points I propose to settle in the succeeding investigation.

1 and 2. Of the effects which follow the application of heat to the living body, the most immediate is a blush of redness to considerable extent around the burnt part,—removeable by gentle pressure—disappearing in no long time,—and not permanent after death. Next to this in order, and occurring indeed most generally at the very same time, is a narrow line of deep redness, separated from the burnt part by a stripe of dead whiteness,—bounded towards the white stripe by an abrupt line of demarcation, passing at its outer edge by insensible degrees into the diffuse blush already described,—but not capable of being removed, like it, by moderate pressure. This line of redness may be seen very distinctly after the application of the actual cautery, the immediate effects of which represent exactly what may be looked for in a case of speedy death by burning. The redness is obviously caused either by extravasation or very minute capillary injection of the true skin. In every instance in which I have watched the effects of the actual cautery, as well as in the

cases which have been observed at my request by others, it appeared in a very few seconds, sometimes in five, generally within fifteen, and only once so late as thirty seconds. I mean, that in this short space of time, the inner edge of the redness surrounding the cauterized part was deep crimson, and incapable of being removed by pressure. I have farther examined carefully this appearance in the bodies of persons burnt a few hours before death, and never failed to observe it, forming a line on the entire skin, near the burn, from a quarter to half an inch in breadth, and about half an inch from the burn.—The next appearance in point of order is blistering. I have not been able to determine the usual period, at which blisters are formed. But from the observations I have made, it is obviously an uncertain consequence of a burn, if life be extinguished a few minutes afterwards. When the burning body is a scalding fluid, blisters generally appear in a very few minutes; yet sometimes in very extensive burns of this kind, especially in young children, there is no vesication at all even in many hours. When the burning cause is an incandescent body, vesication is by no means so invariable a consequence as might be supposed. For example, it is seldom witnessed at all round the edge of a burn produced by the actual canter, probably on account of the circumscribed manner of applying the heat. At the same time, it is certainly often observed very soon after an ordinary burn, such as arises from the clothes taking fire; and the case of the woman in the second trial, proves that it may occur even when the individual is burnt to death on the spot, and consequently does not survive the burn many minutes.—The other vital consequences of burns ensue at too remote a period to be of any use for the object now in view.

3. It follows, then, that the only effects of burns appear immediately after the injury, and remain in the dead body, are *first*, and *secondly*, blisters filled with serum; that the former is an invariable effect; but that the latter is not always observable when death follows the burn in a few minutes.

Before these appearances can be assumed, as indicating that the burn was inflicted during life, it remains to be inquired whether they can be produced or imitated immediately after death, while vitality still lingers in the body, or to use Bichat's phrase, while organic vitality survives the extinction of animal life. For this end the following experiments were instituted partly by my self, partly by my friends at my request. In every instance the appearances are described from my personal inspection.

*Experiment 1st.*—In a stout young man who poisoned himself with laudanum, a very hot poker, and a stream of boiling water,

were applied to the skin of the chest, and inside of the arm one hour after death. Next day no blisters or redness were visible on or near the burns. At the parts burnt with scalding water, the cuticle appeared as if ruppled, and could be very easily rubbed off; but there was not a trace of moisture on the true skin beneath. At the parts burnt with the poker the whole thickness of the skin was dried up, brownish and translucent, but entirely free of redness or blistering on or around them.

*Experiment 2d.*—A stout young woman died in ten or twelve days of a low typhoid fever, and at her death was but little attenuated. Ten minutes after death, boiling water was poured in a continuous stream on the breast and outside of one of the legs. The body was examined in a day and a half. On the leg no trace whatever could be discovered of the action of heat. On the breast, the place where the water had been poured on it was of a pale brownish hue, the cuticle slightly shrivelled, dry, brittle, and easily scratched off. The surface of the true skin below was dry; and around the burnt part there was not a vestige of redness or blistering. In this instance, the heat was applied so soon after death, that the gentleman who applied it felt convinced he observed the chest heave up when the hot water was poured on it.

*Experiment 3d.*—A very powerful athletic young man poisoned himself with laudanum; and although the stomach pump was successfully applied not many hours after he had swallowed it, continued completely comatose, and without any sign of sensibility under the ordinary stimulants. Four hours before death a tin vessel, filled with boiling water, was closely applied on several parts of the arms; and a hot smoothing-iron was held on the outside of the thigh-joint. Half an hour after death, a red-hot poker was applied to three places on the inside of the arm. The body was examined in thirty-eight hours.

Some of the spots burnt during life presented an uniform blister, filled with serum. On two, there was no blister; but the cuticle was gone, and the true skin dried into a reddish translucent membrane, at the edge of which there were drops of serum, and also particles of the same fluid dried by evaporation. Round all these spots there was more or less scarlet redness, particularly round the two spots last mentioned. A bright-red border half an inch wide surrounded the whole burns; and the redness was not in the slightest degree diminished by firm pressure.—The spots burned after death were, some of them charred on the surface and not elevated; two presented vesications; but the blisters were filled with air; the cuticle over them was dry and cracked, and the surface of the true skin beneath was also quite dry. On the white parts of the skin there was no adjacent redness. At a

part of the edge of two of the burns, however, the lividity which appeared on this, as on most dead bodies, approached very near the margin; but the discoloration could be almost entirely removed by moderate pressure continued for a minute.

*Experiment 4th.*—Half an hour after amputation of a leg, a cauterizing iron was applied to it. Around the cauterized part whiteness and dryness were produced, but no redness or vesication.

*Experiment 5th.*—Two hours after death subsequent to amputation of the arm, a cauterizing iron was applied to the remaining arm. The appearances were the same as in the last experiment.

*Experiment 6th.*—Ten minutes after the amputation of a leg, a cauterizing iron was applied to it. The effects were the same as in the fourth experiment, except that blisters were formed round the burn,—dry, however, and filled with air.

From these experiments it appears that the application of heat to the body, even a few minutes only after death, cannot produce any of the signs of vital reaction formerly described. It farther appears, that the lividity which follows death in most instances, may assume such an arrangement as to imitate the red border produced by a burn during life. But an experienced person can easily recognize the appearance put on by lividity, and if its general appearance should not serve to characterize it, it may at once be known by the effect of continued moderate pressure in removing the redness. It should be understood then, that, so far as the preceding experiments go, a line of redness near the burn, not removeable by pressure, and likewise the formation of blisters filled with serum, are certain signs of a burn inflicted during life.

## REVIEW.

*A Treatise on Hysteria*, By GEORGE TATE, member of the Royal College of Surgeons, London.—Philadelphia, E. L. Carey and A. Hart, 1831.

BEFORE we enter upon a very brief analysis of the treatise of doctor Tate, we shall make an extract from his very brief preface: "After perusing the manuscript of this work, a friend, whose judgment I am bound to esteem, represented to me, that in it were some expressions calculated to give offence to my professional brethren. All I can say is, that, of an intention to cast reproach upon any one, I am perfectly innocent, but when a great and destructive evil prevails, and prevails to a frightful extent, the selection of mild language would be a mistaken delicacy; and would go far to neutralize the effects of the intended remedy."

After reading such a preface, the reader will not be surprised to find the author before us at war with his brethren. Not only do we find him, in his preface, bidding defiance to the admonition of "a friend;" but he boldly assumes the attitude of a censor upon all who have preceded him; and while he forwarns his brethren, in his preface, that there is "an ignis fatuus that bewitches, and leadeth men into ditches," in his preface, he unmercifully consigns every confrere to the pursuit of this *ignis fatuus*, or worse than this, has them already in the *ditches*.

We believe that there is room for a sound practical work upon the subject of hysteria, and we therefore felt it an imperious duty, connected with our editorial labors, to examine the work. We took it up with feelings of good wishes; but we are free to confess that, at the very threshold of the work, we had our misgivings—when men essay to raise a reputation for themselves, or their works, by condemning all others, we are already suspicious that they, however honest, have mistaken the true point of the compass. And when we see a writer attempting to prove that the many hundreds and thousands who have preceded him, were blockheads, that they talked and wrote of a disease, and prescribed for it, for ages, without knowing what they meant; in short, that he has no confidence in others, or pretend to stand in that relation, we meet him at every step with mistrust. Such being the attitude in which our author has placed himself, we may fairly claim the right to compare his pretensions with those whom he so freely condemns; and, if we are not greatly mistaken, we shall find as we proceed sans ceremonie, as has our author, that



quisite to say something about it. It occurs, like other forms of hysteria, almost invariably between the ages of thirteen and forty-five."

We have here a common form, or *common degree* of hysteria, (for the author uses these terms as synonymes,) it will follow, of course, that the second and third forms are *uncommon*; yet, we shall find, when we come to the second form, that doctor Tate almost dismisses the first degree or form, as scarcely entitled to notice: "this is of (the second form,) much more serious consequence than the foregoing form, is infinitely more insidious, &c."

Before we proceed further, we wish to remark, that doctor Cullen seems to have been rather unfortunate in his description of the disease in question; whether this be owing to his having paid less attention to the subject than it demanded, or whether it may not be owing to the difficulties inseparable from a disease which hardly admits any systematic description, we will not undertake to decide. But we deem the following conclusions of that great author worthy of notice in this place; he says, that "in the female sex, the disease occurs especially from the age of puberty to that of thirty-five years; and, though it does sometimes, yet very seldom appears before the former or after the latter of these periods. At all ages, "the time in which it most readily occurs, is that of the menstrual period." The disease more especially affects the females of the most exquisitely sanguine and plethoric habits, and frequently affects those of the most robust and masculine constitutions. It affects the barren more than the breeding woman, and therefore frequently young widows, (to the truth of its sometimes, and not unfrequently, affecting breeding women, we can bear testimony, having long since seen such cases: but more of this hereafter). The facts which we have just quoted, will serve to shew that all the more prominent circumstances, connected with hysteria, were well known to doctor Cullen.

Doctor Tate continues. "It (the hysterics) is always attended with some irregularity about the menstrual discharge, and the stomach, liver, and bowels, (one or all) are generally out of order." This part of the symptomatology has been noticed by every writer on this disease, and we believe, those come nearest the correct view of the subject, who view hysteria as being mostly, at least, perhaps always when confirmed or inveterately attended with dyspepsia. Doctor Gregory, who has written a very sensible chapter on this disease, says that hysteria is intimately connected with disordered states of the stomach and bowels. The nervous system may be irritable, the menstrual discharge may be obstructed, but it often requires a fit of dyspepsia, or a very costive state of the bowels, to develop the hysteric paroxysm." Than

this, we verily believe, there is not a more important truth connected with hysterics. We have seen almost exhaustless quantities of wind generated in the hysteric stomach: enormous quantities are sometimes discharged under such circumstances; and this we have seen in several breeding women to such extent, as to hear the explosions outside of the house, and this sometimes for hours.

"It is characterized by alternate fits of laughing and weeping, starting and screaming, lying still as death, and struggling with gigantic strength. Generally, there is a loud rumbling in the bowels, called *clangor intestinorum*, and the *globus hystericus*, as it is called, which is, in fact, mere flatulence, causing a sensation like that of a solid ball arising in the throat, and producing a sense of suffocation." These and a few other symptoms constitute, (so to speak,) the very essence of hysteria; and, yet our author views all, he includes under this division of his arrangement, as of very little importance,—not having thought worth while to give a single case, while under the other divisions, he has dwelt pretty much on his cases; and indeed, if we can understand him, he considers these first degree cases as erratic, while the genuine or pure disease is to be found in his other degrees. He tells that, all cases with some important exceptions, and those exceptions we take to be those of his first division or degree, are dependent upon menstrual disorder, but the true disease is known by tenderness of the spine.

"The old writers say, there is an accompanying copious secretion of pale urine: but this may or may not happen: and, as far as I have seen, is not more likely to occur at this than at any other time. This, therefore, like most other sayings of the ancient medical authorities, cannot be depended upon. The symptoms already named will always be sufficient to denote the character of the disorder."

We are told that doctor Tate, has not seen the pale urine, and therefore, it must be a mere mistake; every author, we believe, who has written on the subject of hysteria, has named this symptom; yet, Cullen and others, tells us that sometimes there is a reduced quantity of urine. But why this unmanly philippic upon *all the ancients*.—Fie upon such a libel. For ourselves, we have found this a very common symptom in severe attack of hysteria, so much does it prevail, according to our apprehension, that, we would set it down as one of the pathognomonic symptoms of the disease; yet, we are aware, as has been mentioned by our author, and every writer on hysteria, that this symptom is sometimes absent, as indeed, is the case with every symptom. We fully concur in the position, that "the symptoms already named will always denote the presence of hysteria."

We believe that in hysteria, as in all other diseases having multifarious modifications and erratic forms, there is in nature, something like a standard set or suit of phenomena, entering into their constitution; and, whatever may be the occasional aberrations, they all, as it were, rally around a certain assemblage of symptoms; and as these signs shall more or less resemble the standard phenomena, so is the disease more or less pure. Adopting this opinion as our guide, we are of the opinion, that, the foregoing brief quotations contain all the more essential signs of pure hysteria—and consequently, we believe, that, all that our author has written, under his second and third degree, are but modifications or erratic cases of the disease in question; most of them, indeed, being so slightly hysterical as to approach rather the nature of neuralgia, which sometimes so much resemble hysteria; and which have been correctly treated of by doctor Teale. We deem a correct knowledge of these standard symptoms of so much importance, that we shall, when we come to offer a few observations of our own, present a recapitulation of them.

“For the cure of this kind of hysteria, the most offensive drugs used to be considered specifics, and are still used by some of the old school.” That these offensive stimulants have been abused, and often given uselessly, or perhaps, sometimes to the injury of patients, we have no doubt. But we have known many females, who have been subject to hysteria, from time to time for many years, and who, became so sensible of the relief afforded by some of those offensive drugs, that they were never without them; and although it might be considered a kind of dram drinking, it was used with the soundest discretion; and only when some exciting cause, such as some mental distress, fatigue, catching cold, constipation, &c. gave a loose rein to hysterics. Among these, one of the best formula is equal parts of tinct. assaf. aq. ammon. and spirits of nitre—and another is equal parts of sp. lavend., spi. nitre, and tinct. opii.; the latter has been our favorite prescription, for the more hardened or habitual attacks of hysteria for many years.

So important do we consider this remedy, (though it cannot be classed with offensive drugs,) that however, much we may approve of the mild depletory plan of treatment proposed by doctor Tate, or doctor Rush, who, in recent cases, or where there is a state of plus excitement, gave cathartics, and practised bleeding; we say, however important such practice under proper circumstances, we believe the proper regulation of the exhibition of the above stimulant mixture, is not less important; and the physician who is not acquainted with their use, is by no means prepared to do justice to a considerable portion of his

patients. Doctor Rush, was well acquainted with the advantages to be obtained from the employment of small doses of opium, in hypochondrical and hysterical disorders. We have long since used this article, in combination in certain cases of hysteria, with results in the highest possible degree satisfactory. Indeed, the fact, which has been admitted by our author, and all writers of the variableness of this disease, serves to refute an opinion, which would confine the practitioner to the use of antiphlogistic treatment.

Now, as "hysterics are occasionally brought on by passions of the mind, the patient had only to make her election, either to exercise at once a becoming control over herself, or to indulge her sensibilities at the expense of being drenched with the most suffocating liquids in the world, and of having her convulsions of caprice exchanged for convulsions of disgust."

We consider the above sentence alike remarkable for its want of good sense and cruelty. We are willing, to a certain extent, to excuse our author from this "unkindest cut of all," seeing he has a favorite theory to support—to wit: that "hysterics" is a *sore back*, that is, a tender spine; and without this, there is no hysterical disease but that of 'caprice,' or disease of a voluntary kind, and without this, a disease which, according to doctor Tate, is always dependent upon the disorder menstruation, *and, the disease nevertheless, seated in the spine*, and could not be cured by an antimonial plaster, which is the only new remedy of this author.

"Perhaps, then in these simple cases, which are seen distinctly to arise from mental emotion, where there is nothing scarcely wrong in the animal functions, this harsh penalty may be deservedly incurred, and may be well suited to induce susceptible young ladies to divert themselves of their fanciful illness. But at the same time, I must protest against the idea of such means being really useful, or even in the most common form of the hysteria, except in such a case as I have supposed, for it is almost invariably connected with bodily infirmity, and will set at defiance all the stimulants and antispasmodics in the universe: during which time, the patient is suffering incredible distress, for want of a little judicious treatment; such as would dispel all signs of the attack in a day, or even in a few hours."

Our author has made up his mind, it would appear, to believe that every lady, as we shall presently see, who does not "winch" upon pressure being made upon the spine, or acknowledge that her catamenia are disordered, is not hysterical, but merely capriciously sensibility to emotion of the mind. There is "nothing clearly wrong in the animal functions," that is, the menses are not amiss, nor is the spine disordered; she is, therefore, wanton-

ly yielding up herself a prey to the disease, and she deserves to be drenched with deufelsdreck, or any thing else that may be found in the "world," of noxious smells; because she is too susceptible to things which will not harm her, if she will but steel her nerves to a proper degree of insensibility.

Doctor Tate attributes hysteria of the first degree to "over-excitement," and says, "there can never be much difficulty in tracing the disorder." In such circumstances he would trust to, "such stimulants as ammonia." We shall presently see, that he attaches much importance to hysteria in the second and third degree; which are enveloped in great obscurity; while, in the disease in the first degree, where the genuine pathognomic signs are acknowledged to be present, he treats it as a mere frivolous affair, neither dependent upon disorder menstruation, nor soreness of the spine, which he says, always attend this disease when in great force.

This concluding paragraph of our author, under the division of the first degree, by consigning all cases not attended with what he considers pathognomic signs, to a trifling and inefficient treatment, such as a little ammonia, has committed a most material mistake; and if the young practitioner suffer himself to be led away with the supposition, that, hysteria which is characterised by unnatural weeping and laughing, starting and screamings—struggling with gigantic strength, and now lying as still as death—hears the clangor intestinorum, and the expulsion of air from the stomach, whether there be sore spine or disordered catamenia or not—we say, if he suffers himself to believe that this is affectation, and not hysteria; and trusts to the employment of ammonia, he will soon be made to repent of his folly.

If we may venture to hazard an opinion, upon that which has long been familiar to us, we would say, that many of those sudden attacks, arising from some overwhelming alarm, or grief, call for more prompt and active treatment than any others. If we have a case associated with disease of the catamenia, or if there happen in young girls to be some tenderness of the spine, which is one of the most common seats of debility in some parts of Europe, at least, as we know, by our own observation in some parts of the north. In all these cases he may take time, carefully and dispassionately to settle his plan of treatment; but in those sudden attacks, in full habits, nothing but prompt blood-letting, cathartics, anodynes, &c. will secure present safety, or prevent, as consequences of a severe attack unchecked, some dangerous disease, or the permanent establishment of the hysterical habit for years, or perhaps for life.

We have already stated as our opinion, that doctor Tate has devoted the principal part of his book to erratic forms of hysteria,

or rather, cases of an obscure character, partaking mostly rather of the nature of neuralgia, than of the nature of hysteria; but since we differ *toto cælo* with this author, we shall very briefly state our views of hysteria, before we enter upon any examination of the second and third divisions of his work.

Our observations upon hysteria have led us to conclude; that notwithstanding its proteiform nature, no disease is better characterized by a few pathognomonic symptoms than this disease.—These are perfectly familiar to the profession, and to be seen in every book which treats of the disease; but, that we may not be misunderstood, we shall mention such as we consider inseparable from hysteria. Of these, we may say, that when they are present, they constitute hysteria, when they are absent, there is no hysteria. If this be true, and we think it will be admitted, by those who are really acquainted with the disease, then, however variant other symptoms, which sometimes attend, and sometimes are absent, we may still say that the disease in question is as well characterized as any other. The symptoms which will never deceive us in either sex, are sudden fits of laughing and crying, from unsuitable causes, the patient not being otherwise delirious, nor insane; a causeless dread of evil; clangor intestinorum, globus hystericus; sighing and sobbing. With these more pathognomonic symptoms, are almost always associated low spirits, a variable temper, dyspepsia, manifested especially by great quantities of wind discharged from the stomach, palpitations, headache, fits of difficult breathing. In the more violent cases, convulsions, resembling epilepsy, in some degree, are common, with shrieks, beating with the fist upon the breast, hiccough, copious flow of pale urine, nymphomania, &c.

We are aware that the list of symptoms might be extended, but it is not our purpose to take up this subject in extenso; we shall now leave this branch of our subject, believing that no one who has seen, and paid attention to these symptoms, can ever fail to know the disease, when he sees it, whether it be accidentally associated in delicate females, with some irritability of the spine, or not.

After all then, whatever may be said about the uncertainties and obscurity of this disease, we unhesitatingly say, there is not one in the range of nosology more clearly characterized by symptoms, than is hysteria.

Our reflections lead us to conclude that a great deal of the difficulty with which this subject has been beset, though we by no means admit that it has been more so than many other diseases, is owing to the profession overlooking, in great degree, the fact of there being a condition of the body, principally in the female,

which we would term the *hysteric habit*. This condition, indeed, almost amounts to a temperament. From the dawn of medical science, there has been recognized a condition of the human body, called a melancholic temperament. Then, we think, there is a condition which, though far less common than melancholic temperament, is equally obvious to our cognizance, which we call the hysteric habit. It is perhaps nearly, if not altogether, peculiar to women. Like the melancholic temperament, the hysteric habit is interwoven with the very constitution; nay, it makes a part of it. And hence it is, that under equal circumstances, while one person of this condition is tormented with hypochondriasis, or hysteria, another, being of a different temperament, is a stranger to the ills, which those impressed with the hysteric habit are "heirs to." This is the source of much, if not all the perplexity attending this subject; and doctor Tate has missed his aim in viewing this disease as a mere occasional affair, like a fever, catarrh, &c. as he obviously does.

Nothing can be more fanciful to our apprehension, than attributing the hundreds, and we may say, thousands, of attacks which many women suffer, in the course of their lives, to disordered catamenia, associated with a state of irritation of the dorsal portion of the spinal marrow.

Nothing is more familiar to the experienced practitioner, than the fact that, we meet now and then, with cases of amenorrhea, dysmenorrhea, and the opposite state of the uterine organs;—sometimes both violent and obstinate, without the presence of any thing like hysteria. We have known many young ladies, who were much afflicted by painful menstruation for months; more or less for years, and yet never exhibited any evidence of hysteria. Doctor Cullen tells us, that hysteria is most apt to attack females about the period of menstruation. This accords with our experience, and we can easily understand how it is that a female, impressed with the hysteric habit, shall be most likely to have it roused into action by this process, at all times alike important and trying, to the female constitution.

We think it will be admitted, that catamenial derangements are far more common in this country than hysteria: what then shall we think of a loose description of this process, as the cause of hysteria? It is dull philosophy, which can admit the belief, that menstrual disorder is the only cause of hysteria, notwithstanding that this disorder is far more common than hysteria.—It is true, it may be argued, that in medicine, causes, or circumstances which act as causes, may sometimes exist without the effect following; but even admitting this, it is but justice, that doctor Tate should enable us to distinguish those forms of men-

strual disorder, which is the invariable cause of true hysteria—this he has in no degree attempted to do.

We shall now proceed to a very brief examination of hysteria in the "second" and "third" degrees. In doing this, we shall content ourselves with the quotation of a case of each, to which we shall add a few remarks.

Case first. A. W., aged 19, a rosy-cheeked, healthy-looking country girl, came to me early on the morning of the 22d April, 1825, complaining of violent pain in her eyes, which seemed inflamed, and discharged a copious flow of scalding tears. This had come on without previous shivering or other warning, a few hours before she left home, and she could assign no cause for her illness. The conjunctiva was about as much injected as it is generally after a violent fit of crying. She was immediately bled from the arm; and after losing about eight ounces of blood, she opened her eyes, and declared she could see as well as ever she could in her life. The pain also was nearly gone; and this without any fainting, or any perceptible tendency to it. She was then ordered to go home, to keep quiet, and to live low for a day or two; calomel and jalap, with sulphate of magnesia, were also prescribed for her. At four o'clock the following morning, I was called up to go to her immediately, (six miles in the country) as the people about her declared she must die, unless she could obtain instant relief. I found her seemingly in agonies. Her eyes continued well; but she was breathing with such excessive rapidity, as I can only compare with that of a hound after a hard run, and with much the same kind of distress. Her hand was firmly pressed against her left side, beneath the breast, where her gestures (for she could not speak,) signified that she was suffering acute pain. It was impossible to ascertain the state of her pulse, in consequence of the agitated state of the respiratory system, to say nothing of her terror; but her chest sounded well, [and why should it not?] and she was in a profuse perspiration, attended with high heat of the surface of the body. Upon inquiry I found that she had not menstruated for fourteen weeks, and for more than twelve months very inadequately to her former habits; and had complained of pain in her left side, with occasional palpitations. These circumstances shed some light upon the rather puzzling appearances of the case, and went a great way to determine its source and character. I then had her turned round to examine her spinal column; on making pressure upon the four upper dorsal vertebræ, she complained of great tenderness and pain; which was referred to the left side, and to the scrobiculus cordis. As I had always found these, or some other division of the spine, tender, on the application of pressure, in urgent cases of hysteria; I was quite satisfied



that this was nothing more than a mysterious case of that description. The fugitive return of the apparent ophthalmia, the seat and kind of pain in the dorsal vertebræ, with a suspended menstruation; all concurred in giving it this and no other character. Although not expecting much benefit from it, at the solicitation of friends, she was again bled, with scarcely any relief. The treatment which I chiefly relied on, was the tartar emetic plaster to the spine. This was applied along the whole course of the dorsal vertebræ, three times a day; and she took calomel and cathartic extract, followed by an aloetic mixture every four hours.

In the course of that day, and the following night, many dark and offensive evacuations were procured; after which, the breathing and lateral pain were somewhat relieved. On the 24th, her pulse were 120. Tongue brownly furred. The eruption had not yet appeared. Leeches were applied to the side and the other medicines continued. On the 25th, the eruption was visible in considerable quantity. Her breathing became nearly natural, and the pain in the side very much diminished. She could now talk composedly, and was free from all appearances of distress. On the following day her only complaint was, that of the pain caused by an antimonial plaster, which had been removed in the night, having elicited a sufficient crop of pustules. The pain under the left breast was gone, her breathing and pulse were natural, and her tongue clean.

From this time, she was gradually recovering her health and strength; but continued to take the aloetic mixture, with iron. The catamenia, however, did not appear, and at the end of six weeks she was attacked in a precisely similar way, the side being again painful, the respiration again rapid, and the spine again tender. Again the tartar emetic ointment was applied, and she recovered under the same treatment that had been previously pursued.

It would be well to observe, that, in consequence of her great repugnance to a reapplication of the ointment, a blister was, in this second attack, placed over the course of the vertebral pain; but without removing, or even mitigating it in the smallest degree; and this fact tallies with the general result that has attended blistering, as a substitute for tartar emetic in these cases. No sooner, however, did the pustules appear, than the pain and other symptoms immediately yielded. There still remained some tenderness in the spine: to dispel which, a third application of the ointment was requisite. Afterwards, under the constant use of the aloetics, she menstruated; and since, has enjoyed uninterrupted good health.

The case just describe<sup>d</sup>, was evidently hysteria; resembling first ophthalmia, and afterward acute inflammation within the chest. It will be noticed that pressure upon the first four dorsal vertebræ occasioned pain; and that there was pain also under the left breast. To these points, at present, I merely direct attention; as I shall notice them more in detail, after the relation of some other cases."

To our apprehension, there is no trait in the character of the work under review so strongly impressed, or so palpably apparent, as that of an anxiousness to give a name to cases. It really would appear as though the author considered the naming of a disease, as paramount to all other considerations—make a case hysteria, and the way is plain—according to him, there may be neuralgia, there may be amenorrhea, dysmenorrhea, slight soreness of the spine; or there may be menorrhagia, &c.—and notwithstanding that these diseases all have their places, in, and their treatment assigned, in every system of nosology, or practice of medicine; yet, unless you call it hysteria, mysterious name! you are in the dark, and cannot cure the disease.

Never, in our opinion, was there a stronger instance of an author striving to support an error, than in the case which we have just quoted, (and we believe with the great Cullen, that, "striving to support an error, is striving to become ignorant.") In support of this opinion, respecting the fallacy which attends this case, we shall now offer a brief analysis of it. We are told that on the first day, 22d April, the patient complained of violent pain in her eyes, which seemed inflamed, and discharged a copious flow of scalding tears, and she had rosy cheeks; the intolerance to light was extreme." The next day, "she was in a profuse perspiration, attended with high heat of the whole body," and further, "in the course of that day, and the following night, she had many dark and offensive evacuations." "On the 24th, her pulse were 120, tongue brownly furred." Now can any thing be more plain than that the patient had an attack of bilious or remittent fever. The symptoms most clearly indicate that such was the nature of this attack, and, the good effect of a proper treatment, with the exception of the plaster to the back, support our view of the case—she was bled twice, and took calomel, sulphate of magnesia, calomel and purgative extract; also several doses, we may suppose, as it was given every four hours of an aloetic mixture—she was also leeches. Now, was this not pretty good treatment for a slight case of fever?

It may be said, there were symptoms of hysteria present, we admit it. But it is nothing uncommon to see hysterical symptoms, attend cases of fever, in females of the hysterical habit—and

in this case, it is our opinion, that the hysteria was a mere accidental supervention; and nothing could be more likely to awaken a dormant condition of this kind, than the absence of the catamenia, "for four weeks," a state of amenorrhea, of fourteen weeks, preceded by some irregularity of that discharge for twelve months, was well calculated to excite hysteria. But if there be any use in nosology, or utility in sound distinction in any case whatever, then we say, this was a case of complication. Amenorrhea, acute fever, and hysteria, were obviously present; and, so clearly as that, each required its peculiar treatment. The proper remedies for a mild grade of fever were employed and afforded relief. The hysteria, being pretty much the result of the fever, yielded as the fever did, but we think it quite probable, that a considerable local irritation may have been useful, in arresting the morbid sensibilities of this young woman's nervous system. The aloes and iron, in a protracted disorder of the catamenia, would afford relief, as well under the old name of emenagogues, as that of anti-hysterics. In a word, it was to be expected, that when the menses were properly restored, the patient would be relieved of her hysteria, since the symptoms, so called, are apt to supervene upon any interruption of the menses, in women of the hysteric habit.

Doctor Cullen, has said speaking of hypochondriasis and hysteria, that "both are marked by a peculiarity of temperament, as well as by certain symptoms accompanying that," and hence it is, that whatever interrupts the health of persons having such a temperment, will excite hysteria, whether it be amenorrhea, fever, fright, grief, joy, and the passions generally, so may a state of irritation of the spine.

We have already extended our observations beyond what we had intended, and shall, therefore, as briefly as possible, dispose of our task, by citing one of the cases reported by our author as hysteria, in his third division, and finish with a very few remarks.

"Case 7th.—E. Smith, aged seventeen, was admitted into the Middlesex hospital, under the case of doctor Hawkins, on the 5th of September, 1826. She had just recovered from a severe attack of rheumatism in her knees and shoulders, which lasted seven weeks. A fortnight before her reception, she was seized with involuntary convulsive movements in the eyes, arms, and neck. These had continued ever since with great violence. *The catamenia had been suppressed four months*, [we find this sentence italicised, as though there was much point in this item of the case; interrupted catamenia is the cause of the other symptoms, (the hysteria,) but this state of things often exists without hysteria; and hysteria, often exists with disordered catamenia,

so that, this can throw no new light on the subject.] She had headach, pain in the back, thirst, pulse 96, tongue loaded, bowels constipated. She was actively purged without success. The calomel, senna, and turpentine, always dislodged dark and copious motions; but, produced no alleviation of the convulsive spasms, which were like those of hydrophobia. She could not hold her head quiet for an instant, and the grinding of her teeth was so violent, as to force one of them from its socket. The convulsions were uninterrupted, except by short intervals of broken sleep. Her intellects were unimpaired. She was put into a warm bath, which aggravated her convulsions, produced great irritation, and inflammatory symptoms. Sixteen ounces of blood were drawn; it was inflamed. She was bled again the next day; still little alleviation of the spasms. Musk was then tried without effect. Camphor and opium procured her some sleep; after taking them the second time, she slept soundly; awoke, and soon afterwards expired, on the 13th of September, being eight days after her admittance."

This was originally a severe case of rheumatism, in the knees and shoulders, which lasted seven weeks. Afterwards she had fever, as manifested in headach, backach, a "tongue loaded," bowels constipated, pulse 96, dark alvine motions. The warm bath greatly aggravated her symptoms, particularly the convulsions. Blood was inflamed. Two detractions of blood did not much alleviate the spasms. If these circumstances are not sufficient to prove the highly inflammatory nature of this case, and that the depletory measures were inadequate for its removal, the appearances disclosed by the dissection, leaves no room for us to doubt on this point. There were "tubercles in the lungs, and earthy concretions in various parts of the body, adhesions between the liver and adjacent parts—the omentum studded with numerous cysts: some containing a black semifluid matter, others calcareous depositions. Several large concretions in the pancreas."

When we look at this assemblage of disorganization, including the induration, or "concretions," in the pancreas, and see doctor Tate saying, that this, "was, with submission a case of hysteria," we can but exclaim, monstrandum! And, when he queries, "whether a timely application of the tartar emetic to the spine, would have rescued this unhappy girl from an early death, it is hard to say, we are lost in wonder unspeakable." To our apprehension, reasoning upon a matter so absurd would be to betray a weakness.

We are well aware of the uncertainty attending every attempt at illucidating cases which have not been seen, but of all the cases on record, we should suppose, one could not easily be selected,

in which the pathology is more clear, nor the conclusion; or deduction, derived from it, more erroneous, than are those of doctor Tate.

This was a case of severe rheumatism; at the end of seven weeks, there was considerable fever with inflamed blood.—For all this catalogue of inflammatory disease, very little depletion was employed. Dissection disclosed indurations, adhesions, earthy concretions, &c. Can any thing be more clear than that this was a case of high inflammatory action, inefficiently treated, as the post mortem appearances prove. Yet, strange to tell, our author seems to be infatuated with the notion, that if he can only pin a name to the sleeve of the patient, the cure is half effected. Call it hysteria, and you may confidently apply a tartar emetic plaster to the back, as your principal remedy, the indurations, adhesions, and concretions, &c. to the contrary, notwithstanding. But, it may possibly be said, that, an early application of the plaster would have prevented all the mischief which eventually became associated with the case. Before we can admit this, doctor Tate must show us, that such are the consequences of neglected hysteria.

Our author seems to rely much on the fact, that the uterus was also in an excited and highly diseased state, he has deemed this so important, that we find he has italicised the following sentence. "*The uterus was rather large and vascular, and the lining membrane of its body and fundus highly injected. The fallopian tubes and ovaries contained a good deal of the dark matter above mentioned.*"

This seems to be the main fact upon which the doctor relies, in considering this a case of hysteria. It would have been a wonder if all the suffering from the rheumatism, fever, inflammations, uterine congestion, &c. did not excite into action, some nervous and hysterical symptoms—but to suppose that hysteria, or an hysterical temperament, could have given rise to all the disorganization which was seen would be an absurdity.

In the entire range of medical lore, we know of no axiom in the science more true, or extensively applicable to practical purposes, than the suggestion of doctor Brown, that all diseases are either sthenic or asthenic. But to render this opinion useful, it requires a very material qualification, which is, that every disease, which is in any degree variable in its nature, exists in both these states. This law is clearly manifested in most epidemic diseases, in consumption, puerperal fever, and also in hysteria, as well in relation to its temperament as to its paroxysms or spells.

Admit this, and it will follow, that no one is prepared to practice in the disease who does not shape his course of practice accordingly. Taking this fundamental truth as the foundation

of our theory and practice in hysteria, we shall very briefly state our views. Many women are constitutionally disposed to hysteria, this so far as we can understand its nature, consists of too great a degree of mobility of the nervous system, or in other words, is a state of peculiar nervousness. But it is so far from being peculiar to delicate, feeble, or lean women, that doctor Cullen, was led to ascribe it to plethora; and we all are accustomed to see the hysterical temperament or habit in fat persons. As this temperament shall be more or less intense, so will be the liability to hysterical attacks, from the usual existing causes, which are so well known, that we need not stop to name them. This habit or temperament is not in such force as to prevent the existence of another, in the same individual, as the sanguine phlegmatic, melancholic, &c. and hence it is, partly, that hysteria is sometimes a disease of inflammatory grade, sometimes the opposite. But this sthenic and asthenic condition attends all the temperaments belonging to the human family, and consequently, we see abundant room for the admission of the truly important fact, that hysteria is sometimes sthenic, sometimes asthenic. Let the young practitioner bear this in mind—take his symptoms from any good authors, and apply the usual remedies agreeably to the condition of body present; and he will find his way made easy: the way is broad, though sometimes such is the multiplicity, that the best tracks are obscure.

The principal difficulties attending the treatment of this disease is the fact of its being occasionally blended with other diseases—this point has been strongly, though not intentionally, made out by doctor Tate. In this point of view his book may be made useful—had he taken the plain course, and offered his cases as cases of complication, he would have given the rising portion of the profession a highly important lesson. But instead of this, by endeavoring to mark out a novel course: to teach what had never been taught: to strive to make the profession unlearn all they have ever learned! he has only bewildered himself, and has paved the way for unwary pursuers to fall into the same labyrinth of confusion.

## BIBLIOGRAPHICAL NOTICES.

ART. I. *Clinical illustrations of fever, comprising a report of the cases treated at the London fever hospital, 1828, 1829.* By ALEXANDER TWEEDIE, M. D. *member of the Royal College of Physicians of London, physician to the fever hospital, &c. &c. Philadelphia, Carey and Lea, 1831.*

Circumstances not admitting of our doing justice to the merits of the above work at present, we shall defer the brief analysis, which we purpose making of its contents, until our next number—meantime, we feel it a duty incumbent, that we apprise the profession of the reprint of this very interesting little volume, (162 pages octavo,) in this country.

This is quite a practical work, but so far as sentiment is presented in the book, we do not recollect any thing which we have read, on the subject of fever, that so entirely coincided with our own views of fever. Indeed, there is, we believe, no point of importance in which we differ from the author except one—most of this coincidence of sentiment we have already published, in detached papers. This difference of opinion is on the subject of contagion, but even here, doctor Tweedie, is extremely moderate, contending rather for the possibility, than the prevalence of such a fact.

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ART. II. *A Treatise on fevers.* By SOUTHWOOD SMITH, M. D. *Physician to the London Fever Hospital. Philadelphia, Carey and Lea, 1830.*

The work, the title of which we have just noticed, was published in London, in 1829. It is an octavo of 448 pages. The author having had the most ample opportunity for observation, so far as hospital practice affords room for becoming acquainted with fever, it was to be expected, that his work would add a portion of useful knowledge to that previously on hand.

Our time has not enabled us to examine the book with that critical care, which is essential to the true valuation of the work; we must therefore, defer, for the present, our intended brief analysis of it. So far as we have examined, we have been led

to consider the work of doctor Smith one of much merit. Although we do not agree with some of the sentiments or theoretical views of our author, yet in the main we think his views just; and, the work is remarkable for the perspicuity of style in which it is written.

We perceive, that the author does not stick very closely to his text—for instance, he assures us that his work is quite practical; and, yet we find him giving a brief sketch of all the theories, which have obtained any notoriety, in addition to a very considerable portion of his own reflections. We do not however, find fault with the work on this account, since, we think many of his opinions important, and that his brief outline of other theories has been executed very efficiently, and with a brevity alike commendable for its clearness and *point*. No one experienced, can read the book of doctor Smith, without most clearly perceiving, that vast improvement has been effected in the pathology of fever; and, that the mass of the profession have much room to improve their therapia. And while we willingly ascribe much merit and praise to Broussais, and the French school, for suggesting much improvement, we think it appears with a noon-day clearness, that so far is the theory of Broussais, from having exhausted this subject, that we think there has been a much greater proportional improvement, since his publications, than before.



## MEDICAL.

*No. 1.—Cases of inflammation of the "brain and its membranes," consequential to inflammatory affections of the chest, by doctor WRIGHT, physician to the Baltimore Almshouse.* We have thought proper to notice these cases, for the purpose of illustrating one of the most important points connected with the treatment of fever and inflammatory diseases, of some of the vital organs. In order to put the reader in possession of the nature of the cases under notice, we shall offer a brief extract from the paper of doctor Wright, to be seen in the *American Journal of the Medical Sciences*, for May, 1831.

"The extent, however, no less than the frequency of participation by the brain and its membranes, in the inflammatory diathesis, lighted up by catarrh and pneumonitis, were unsuspected by myself, until revealed in the strongest manner, by a number of cases occurring nearly together, part of which cases, it is the design of this report to describe. This circumstance of their happening in close succession, rendered them more attractive of notice, while the pathological relations disclosed, by the cases themselves, appear to invest them with a character both interesting and important. They seem to establish that inflammatory action set up in the thoracic tissues, and running on to a point of great exaltation, or prolonged in an active subacute form, is liable to propagate irritation by consent, (metastatic, if allowable,) on some part of the encephalon, much more profound and pathological than is represented by the common pain or other distress of head, symptomatic of ordinary febrile developement. Even in the chronic form, pneumonic catarrh appears capable of maintaining a state of constitutional excitability, with peculiar tendency to sudden and serious inflammatory congestion within the head, not foretold by any sensible or palpable signs of suffering or danger in that seat. The brief relation of a few cases will best explain the meaning of these remarks, and show the manner and kind of cerebral derangements supposed to arise in a secondary way, or to owe their occurrence to a predisposition, (congestive diathesis, or vital erection in excess of Broussais,) in the vascular tissue of the membranes of the encephalon, created by the high or long febrile perturbation of catarrh, pneumonia, &c."

It will be perceived, that throughout the above paragraph, our author holds out the idea that the cases, which he reports, are cases of encephalic derangement, arising from a preceding

catarrhal or pneumonic affection—proceeding from metastasis or some other close influence. Our reflections upon these cases, and former experience, lead us to differ from our author on this point, at least in a very great majority of cases. We shall, however, waive notice of this point till we shall have noticed a case or two, and noticed some other points involved in the above paragraph.

The circumstance of these cases “happening in close succession,” while it renders these cases “interesting,” tends to show that they were the result of one general cause—now it is universally known that metastasis is an accidental and rare occurrence, so much, indeed, that to admit all these cases of inflammation of the brain, as metastatic or vicarious disease, would be to exhibit one of the most extraordinary phenomena to be seen in all medical writings. But we shall endeavor presently to offer the true explanation, and thereby support one of the most important practical points connected with inflammation of vital parts.

He has said that “even in the chronic form, pneumonic catarrh appears capable of maintaining a state of constitutional excitability, with peculiar tendency to sudden and serious inflammatory congestions within the head.” This is so common in diseases of children, as to appear to us in the light of a truism—and we think, that these cases present nothing else than a verification of this fact, excepting that the affections seen in the brain of the subjects of the cases before us, were not “suddenly” formed, but slowly, and as a consequence of the “constitutional excitability,” or what we would rather term general fever.

Let us now very briefly notice some of these cases. Case first—the patient had been sick 20 days before admission to the alms-house, with “febrile catarrh,” there was no headach, but the daily form of complicated ague, and the troublesome cough, &c.”—diseases brought on by much exposure to inclement weather. It is no less remarkable that this patient should have passed a complicated ague, without headach, than through inflammation of the head, without pain of the head. On the 19th day after admission, this patient had considerable fever, “pulse full and sharp, as well as quick, (110) skin hotter than common, head dull aching, face for the first time since admission with some red flush.”—“The cough lessened, had scarcely coughed for several hours,” became delirious that night with convulsions. Next morning, 20th day of admission, patient died.

Now let it be remarked, that no pain is noticed, no symptoms of encephalic affection, till the day before death—and compare  
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this with the fact, that there was pus on the brain, and how can we believe that this affection of the head was suddenly formed?

"Pus" says our author "was spread in such palpable quantity between the arachnoid, and pia mater, that it could be collected by passing the edge or back of the scalpel with a light scraping movement." In the conclusion of this case, the author states that from the time of the pain, &c. in the head, till the death of the patient, was but thirty-six hours; and, "yet, in that short period, inflammation of part of the brain and tunics had reached the maximum of intensity, of which the sero-fibrous membranes are susceptible, and exhibited in its results, the usual phenomena of profuse suppurative meningitis."

We have already noticed the very singular fact, that, in an age of three weeks or upwards, this patient had no headach. This fact leads us to believe, that, there are no sufficient grounds for admitting the opinion, that this affection of the brain arose just at the close of the case. For ourselves, we are decidedly of the opinion, that the aguish symptoms were no less a symptom of the inflammatory action in the brain, than that of the thorax. With all deference to the talented reporter of these cases, we must claim the privilege of an honest difference of opinion: we are about performing a conscientious duty, and believe, we shall do the younger part of the profession a service, by admonishing them that there was probably an error in the treatment, not that we impute any want of skill. The practice of medicine in the hands of the most skilful, is beset with difficulties, and the most skilful can, generally speaking, be governed by nothing but symptoms and co-lateral circumstances. Had the symptoms which properly belong to affections of the brain revealed themselves, by their usual symptoms, they would have indicated the use of the lancet, at the very onset of the disease. But it is highly probable, the fatal mischief had evolved itself many days before the patient was admitted into the alms-house. If such be the fact, and surely it requires an examination at least, it is probable an early use of the lancet would have been attended with a more favorable termination; and it serves to show us the safety of depletion in all inflammatory affections, whether they be violent, or remarkable for their obstinacy—this last remark we deem very important, since we believe from long experience, and which is supported by doctor Wright's cases, that slow, sulky, protracted inflammatory symptoms, though apparently moderate, are never to be trusted to any thing but an energetic depletory treatment.

Case second.—This patient was affected with "chronic remittent fever, complicated with pneumonic catarrh. Patient had ague two months before." There was very sensible impedi-

ment to expansion of the chest." When admitted the face was "pale and bloated; *countenance dull, (look anxious;)* no pain of head." There were symptoms of severe pneumonia. We have italicized the line above, believing that these words express in the strongest manner, disturbance of the head. "*Diagnosis*, pneumonic catarrh, complicated with symptomatic chills, induced by cold co-operating with season causes." Could not the inflammatory condition of the brain be lurking under these chills, and the *dull anxious* look? This patient was admitted on the 17th of November, became convalescent, but never well enough to be discharged; on the 15th of February he became a patient again. There were now "obscure chills; heat, and feeling of fulness; sense of numbness all over the body; heaviness and oppression of the head without positive pain; mind dejected." There were no symptoms of pneumonia. The dissection disclosed adhesion of the dura mater (to the cranium;) gelatinous exudation; softening of the posterior lobes, with a seeming mixture of pus—tinges of red in several parts, also some effusion of lymph and serum: patient died fifth day after the attack. Although we admit with great doubt, that such extensive lesion might have occurred in the space of five days, we are decidedly of the opinion, that many of the circumstances attending the case, are in favor of there having been slow inflammation of the brain, and its membranes, long before the open developement of the proper symptoms.

One or two more cases are related in the report before us, but they so nearly resemble those we have noticed, that, we deem it unnecessary to proceed further. We have already noticed the circumstance mentioned by our author, that they are rendered more attractive by their happening "in close succession." This is a most important item in the pathology connected with these cases, since it goes to raise a very strong presumption, that, they were not metastatic, nor vicarious, nor consequential, but a part of one constitutional irritation, one general fever, with particular local determination. It would be assuming too much, to say, that the partial or organic affections arose simultaneously; or, at what particular period they respectively originated. But nothing is better known than that hydrocephalus is sometimes a consequence of abdominal disorders. It by no means follows, however, that in cases of general fever, with chills and pneumonic symptoms, that, there may not be cotemporaneous inflammation of the brain. The absence of some of the more usual prominent symptoms, does not invalidate this opinion—nor is this peculiarity as remarkable, nor their absence more strange, than that such extensive and deplorable lesions of the brain and its membranes, should suddenly fall in, as the

case is about to terminate. Nothing is more common in cases of fever, than for several of the organs to be involved at once, or successively; and although, the embarrassment under which some of them may labor, is not manifested by the usual symptoms, yet, we often see dissection disclosing lesion of organs, that were not known to be involved in the disease, as is the case, as we believe, in the cases now before us. Thus we know that a disease in one part, may give rise to pain in some other, but we are not likely to be much deceived by our autopsic examinations; we will not say that inflammation and pus may not form in the brain in the period of two or three days, but, if it be possible, it is by no means probable, and particularly in cases of patients broken down by long disease.

In the investigation of these cases, we should by no means overlook the fact, that alms-house patients, more especially before the period of old age, (all the cases reported are considerably under fifty,) are either persons of intemperate habits, or otherwise accustomed to hardships, and scanty living—it is well known that disease, is apt to assume an anomalous character in such persons. And although, such persons by their habits are predisposed to disease of the encephalon, it is generally mere irritation, tending to slight mental aberrations, but not to inflammation. It is also known to be a law of epidemics, or diseases of the epidemic character, that in different seasons there is a particular disposition in the body, probably arising from the remote cause, which gives a direction to the morbid action, to this or that organ—thus one year the lungs, another the hepatic organs, again the brain, are the seats of suffering—other years there will be found a disposition more or less durable in its tendency—that is, while one organ is more particularly the seat of derangement, another stands liable to a participation of the same morbid disturbance, as seems to have been the case in the cases before us.

These were cases of fever or diseases of the fall season, in bad habits, (most probably,) the chest bore its principal force, while the general system manifests its participation, by chills and other symptoms of fever. These cases were neglected, owing to the circumstances of the patients; and, thus it was, that while the fever, by its ordinary course of procedure, was undermining the body, the diseased action was concentrating, more especially upon the lungs, and brain. Owing to peculiarity of season, to some peculiarity of habit, poverty, &c. particular organs were more disposed to suffer than others.

In a word, we believe that these were cases of remittent fever, protracted by bad management, by the improvidence of the patients—by more exposure than common, pneumonia super-

vened, and eventually inflammation of the head. We are not anxious to establish, whether these local affections arose contemporaneously or not. But we are anxious to convince our readers, that they are cases showing that an inflammation however moderate for some time, may become inveterate, dangerous and fatal; and that therefore, such cases when fully characterized, call for full and free depletion. And we think, there is very little doubt, but most or all these patients, would have been saved by free depletion at the proper period; but, this was no doubt sometime before they went to the hospital. There is however, one view of the case which we must not overlook, it is this. Many of these cases were so insidious, that before we see them sufficiently characterized to justify a bold and efficient treatment, lesion has already taken place, and this was no doubt the case in most of the cases before us. The only material difference of opinion, then, between the author and ourselves, is this, he supposes, that the encephalon was suddenly invaded by disease, and that death was thus induced—we, on the other hand, believe, that inflammation had long existed, of a subacute kind in the brain; and, our object is by no means to find fault with the treatment, we believe it to have been judicious, and that nothing was left to be done, in such subjects, under such circumstances; but, we are conscientiously performing a duty in giving, as our opinion, that these cases afford an important lesson, in as much as they support the opinion, that slow slight inflammation may progress without being recognized—nor were we ever so fully aware of the circumstance, till we examined these cases. Let us then look well to cases of slow fever; and if they do not yield to ordinary treatment, employ more active treatment, and thus endeavor to avoid congestion, which will sooner or later take place under such circumstances.

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No. 2.—*A brief notice of Epidemic Pneumonia*, By doctor N. SNEAD, of Washington County, Virginia. The following observations upon pneumonia, are taken from the *Transylvania Journal*, for January, 1831. The success which attended the bold practice detailed in the publication before us, entitles it to special notice. As regards our own experience in this disease, we are decided advocates for free depletion. If we may be allowed to appreciate our own treatment in this disease, we must put in our voice in favor of free depletion,

generally speaking; yet, we well know there are exceptions, and that some of our most trust-worthy, and skilful physicians, have seen reason for differing with us as to the nature of the disease, and, of course, as regards the treatment.

It seems proper that we should notice two or three very important points, connected with the practice of doctor Snead. A greater amount of success could not have attended the substitution of leeches for the lancet, nor the combined employment of general and local bleeding. Indeed, if the practice be correct, and this its success seems to certify, leeches would not have answered so well. If free bloodletting from the arm, and nearly to the extent of syncope, was the appropriate remedy, it will hardly be said that leeches would have answered as well.

It has been the practice of some physicians long since, to draw blood, in inflammatory affections, from a large orifice, in cases of a severe or obstinate character, and often with much success. It has also been the practice of some to aim at inducing syncope: doctor Hall, however, of England, is best known as the decided advocate of this last practice. But this gentleman, as is but too common in the profession of medicine, has carried his favorite remedy to a dangerous extreme. In making this remark, we wish to be understood as speaking of its general adoption, by the profession.

Our objections to this method of abstracting blood, do not apply to the remedy as such, but to the difficulty and danger which must attend its employment, by the profession in general. We have elsewhere expressed as our opinion that, even doctor Hall himself, has sometimes carried this practice to a dangerous extent, to say the least. It should be carefully noted here, that, there is this important difference between the practice of the two gentlemen before us, that is, while doctor Hall's remarks apply to diseases in general, or perhaps puerperal fever pretty generally, those of doctor Snead, apply to one epidemic. To obtain the full advantage of this method, we must carefully bear in mind that this was an epidemic, so was the remedy specific.

It may be remarked further, that the practice of doctor Snead, is a modification of that of doctor Hall and others, but one which we deem highly important, we now allude to his method of prolonged feelings tending to syncope, by abstracting now and then, a few ounces of blood, or occasionally drawing a little blood, so as to keep up a very decided state of prostration, for 30 or 40 minutes. Our author has also sometimes employed this method, in violent cases of inflammation not epidemic; here the remedy may be supposed to be of rather more nicety of application, and more likely to do mischief without the greatest caution. But in an epidemic, after its nature is well under-

stood, and an efficacious remedy discovered, we may use that remedy with a boldness which would be highly improper under other circumstances. We have never employed bloodletting as here recommended, but we consider the practice vastly important, and have often seen the good effect of a practice somewhat analogous.

We have now and then met with cases in which the symptoms, as well as the nature of the epidemic, gave us reason to expect a violent and dangerous fever. Upon opening a vein with intention to bleed freely, we have been perplexed to see our patients fall over in a state of syncope, or approach it so nearly, even in bed, as to bring on a very great prostration, palor, and an interruption of the flow of blood, notwithstanding the existence of a pretty good orifice. Under such circumstances, we have often untied the arm, waited the revival of the patient, which we strove to hasten by fanning, applying cold water, or giving a little wine and water, (this last very seldom). So soon as the patient could bear it, we have re-applied the ligature, and took away a little more blood, and thus persisting 20 or 30 minutes, we could succeed in obtaining a copious bleeding. In such circumstances the patients were sometimes kept nearly in the state described by doctor Snead, and we have always been pleased with the result.

"The object of the present communication, is to solicit the attention of practitioners, particularly those who reside in the mountainous and elevated districts, to a mode of conducting the abstraction of blood in those high grades of sthenic disease, which so frequently invade the country, in the form of epidemics. The importance of exhibiting the peculiarities appertaining to epidemic affections, and that of instituting a successful practice, is notorious to the medical profession; as it is to diseases, in that shape, which refuse to yield to the ordinary resources, that therapeutics can date some of its most brilliant acquisitions. Climate, in connexion with topographical and moral circumstances, combine to constitute agencies that are so predominant in their influence, on the human system, as to hold in subservience all our pathological inquiries. The relative force of the disease, its durations and its disposition to invade particular textures, are mainly attributable to the above causes: such is their potency in modifying our susceptibilities, that epidemics which traverse districts of country, remarkable for the diversities in question, are forced to assume corresponding discrepancies. In witnessing the march of some of our winter epidemics, the truth of the position is sustained and amply exemplified; for the affection that constitutes the subject of the following remarks, has afforded in its spread, a variety of pathological conditions,



which have produced the most conflicting views in regard to medical treatment. In the northern parts of the union, it has received the designation of pneumonia typhoides; in the western and southern states pneumonia biliosa. In this part of the country, pneumonic inflammation has not associated itself with typhus states of the system, but invariably exhibited the highest grade of sthenic action. Thoracic inflammation was introduced in this part of Virginia, in the winter of 1818. It was so formidable in its character, that few recovered who took it: every remedial process failed. Bloodletting that was so imperiously demanded, and which would have succeeded, if conducted in the manner I shall point out, lost its reputation with many physicians; for those that were bled, died as well as those who were not.

These unfortunate results necessarily gave rise to the most empirical and discrepant modes of treatment, which greatly increased its fatality. The same disease was epidemic, the two or three succeeding winters in different parts of Virginia, lying west of the Alleghany mountains, producing in its spread an unprecedented mortality. Pneumonic inflammations came on in November, 1829, and continued until the succeeding June, few families escaping in a considerable extent of country. Its invasion was characterized by the most formidable array of symptoms: such as great difficulty in breathing, incapability of occupying a recumbent position, a short and suppressed cough with expectoration, a severe pain in the side, radiating to different parts of the chest. The symptoms generally closed in death, if the most prompt and energetic treatment was not assiduously prosecuted on the 4th, 5th, or 6th day; though this terrific scourge was perfectly disarmed of all its terrors, by the abstraction of blood, in such a manner as to maintain an approximation to syncope, for the space of 30 or 40 minutes; as I clearly ascertained that venesection conducted after the usual plan, was totally incompetent to control it. And I have no hesitancy in saying, that the mortality which attended those epidemic forms of thoracic inflammation, has been for the want of conducting the abstraction of blood in the manner I shall exhibit. When called to a patient laboring under a severe pneumonic inflammation, he was placed in a recumbent posture, and bled until symptoms approaching to syncope supervened; such as paleness profuse perspiration, nausea, vomiting, a slow and almost imperceptible pulse: as the system partially recovered from the collapse, the flow of a few ounces of blood at short intervals, would maintain a relaxation of the system for the space of 30 or 40 minutes, which effected a complete alleviation of all the inflammatory symptoms. It is only known to those who have

practised this mode of bloodletting, how small an amount permitted to flow at intervals, will maintain the system in a state of incipient syncope, after the first impression is made. The brief detail of a case or two, will suffice to present the striking superiority of this mode of bloodletting, over that of erecting the patient and bleeding to syncope, without regard to protracting the impression.

Case 1.—Joe, an athletic negro man, was taken with inflammation of the lungs, and serous texture of the chest, in March, 1830. Bloodletting was prosecuted in this case to the full extent, though after the usual manner. He complained of a fixed pain in the left side, that did not radiate to any other point of the chest; his respiration was frequent and laborious, pulse full and strong. In six or eight hours after the accession of the disease, he was erected and bled to syncope, which required the abstraction of three pounds of blood. The system in a few minutes recovered from the impression. Tartar emetic was given so as to produce some vomiting, and keep up incessant nausea: calomel, with other purgatives, was also prescribed on the second day, the inflammatory symptoms returned with their previous violence; the patient was erected, and bled thirty-two ounces, which produced faintness; he was placed in a recumbent posture, and in a few seconds recovered from the relaxation, and vomiting that had been effected by the bloodletting; tartar emetic, so as to nauseate, and mercurials were continued. On the third day the thoracic inflammation presented itself with the utmost violence. He was again placed upright, and two pounds of blood, drawn from a large orifice, produced syncope, from which he immediately recovered by being placed horizontally. This abstraction of blood, effected striking alleviation of the symptoms. A large blister was applied at this stage. On the fifth day, a pain in the side and great difficulty of breathing returned. He was erected and bled 20 oz. which produced extreme sickness, profuse perspiration, and a failure of the pulse; a condition from which he soon recovered. During the whole progress of the disease, he had a slight cough without expectoration. Extensive blistering, mercurials, antimonials and purgatives were continued. Notwithstanding, the copious sanguine depletion, the thoracic symptoms were not perfectly removed; for a full inspiration would excite a convulsive cough with pain in the side. On the 6th day the inflammation returned with redoubled violence; his pulse was full and frequent, severe pain in the side, difficult respiration, incessant moaning and hot skin. As the symptoms were threatening, he was erected and bled one pound and a half, which produced complete syncope. The buffy coat was half an inch thick. Tartar emetic was exhibited in 3

gr. doses every two hours with calomel and nitre, under the apprehensions, that the further abstraction of blood could not be tolerated, the tartar emetic affording the only resource in arresting the inflammation. The next morning respiration was nearly natural—extremities cool—was disposed to sleep—could make a deep inspiration without exciting pain—the pulse was greatly reduced in frequency, though full and strong, which represented the hopeless condition of the patient, as effusion was manifest. He remained in this state from Friday, until Sunday, 12 o'clock, at which time he expired. A post-mortem examination presented the following morbid appearances: the left lobe of the left lung, exhibited manifestations of the highest grade of inflammation, it being of a dark red color. The ramifications of the bronchia, when divided by transverse incisions, were filled with a peculiar fluid. The inflammation was entirely limited to the left lobe of the left lung, no other portion of the lungs exhibiting recent marks of disease. The inflamed lobe was attached to the pleura costalis, by a thick layer of coagulable lymph, that separated by the slightest touch. The pleura costalis was highly inflamed, a small space around the adhesion of the lobe. The pericardium contained about an ounce of serum, though it presented no vestige of inflammation. The abdominal organs were sound.

This case of pneumonic inflammation, which has been succinctly noticed, we perceive resisted the united energies of blood-letting to syncope, tartar emetic, mercurials, blisters and purgatives. Hundreds have fallen a sacrifice to uncontrolled thoracic inflammation, in the south-western parts of Virginia, by pursuing the course of practice that has been detailed in the above case. The patients were erected and bled to faintness, without regard to the quantity of blood drawn, or the maintenance of a prolonged relaxation of the system; the physician believing every thing achieved of which the lancet is capable. The sporadic cases would generally yield to this plan; though the disease when epidemic bid defiance to this mode of bloodletting.

It was by recognizing the total incompetency of the ordinary mode of sanguine depletion, that I was induced, in the epidemic under consideration, to resort to venesection in a recumbent position, and push the lancet to an approaching syncope, and also maintain that condition 30 or 40 minutes, or as long as the exigency seemed to require. The following case will furnish an example of the mode, in which I have drawn blood, in more than one hundred and fifty cases of thoracic inflammation, with invincible success.

Case 2d.—James Lyon, of sanguineous temperament, in April, 1830, was seized with inflammation of the lungs and pleu-

*Selects with Remarks.*

ra: he was bled 24  $\frac{3}{4}$ . in a few hours after the development of the disease by a bleeder in the neighborhood: this amount produced syncope, as it was drawn in an erect posture. The second day, he was bled 12 or 15  $\frac{3}{4}$ . whilst upright, which produced delirium. I saw him on the third day, for the first time. He had been puked and purged finely; all the manifestations of a vehement pneumonic inflammation were rapidly progressing; he was bled, whilst lying, 32  $\frac{3}{4}$ . this produced sickness, paleness, profuse sweating and slow respiration. In a short time, he partially recovered from the impression, though by permitting a few ounces of blood to flow, at short intervals, and incipient syncope was continued for the space of 30 or 40 minutes: this effect upon the system produced a perfect alleviation of the pain and difficulty of breathing. Antimonials, mercurials, and purgatives were prescribed. On the 4th day severe inflammation returned. While recumbent, he was bled 30 oz. which produced an approach to syncope; as the heart and arteries imperfectly resumed their energies, the flow of a few ounces of blood kept up a complete relaxation with nausea for half an hour. Antimonials, calomel, and purgatives continued. On the 5th day, difficult breathing, severe pain in the side, upon spreading the chest returned: the loss of 16  $\frac{3}{4}$ . of blood drawn when recumbent, produced great sickness, with general relaxation, which was continued 20 or 30 minutes, by the subsequent flow of a few ounces of blood. A large blister was applied at this stage: such was the rebellious character of the affection, that inflammation returned on the 6th day, though with less violence than on the preceding days: the abstraction of 16  $\frac{3}{4}$ . of blood, in the mode exhibited above, removed every vestige of inflammation, which was followed by a speedy convalescence. Lyon lost upwards of 9 lbs. of blood in 6 days; but if the same amount had been drawn in such a manner as not to have maintained a prolonged relaxation of the system, at each abstraction, he would have died from the results of unrestrained inflammation.

The peculiar obstinacy that characterized this case was owing to the limited depletion, on the first and second days. A large majority of patients had to be bled recumbent, as not half the requisite amount of blood could be abstracted, if it were drawn in an erect posture. In those, comparatively few cases that could sustain the loss of 40 or 50  $\frac{3}{4}$ . before symptoms of fainting supervened, they were bled in the upright posture; though, when placed horizontally small quantities were permitted to flow at short intervals, so as to keep up a relaxation for half an hour. This prolonged prostration of the heart and arteries, not only gives the capillaries to free themselves of the congestion that constitutes the seat of inflammation, but effects striking modifi-

cations upon the organic sensibility, presiding over other portions of that system, as these are called into action important revulsive processes, which are simultaneous in their development, are sustained so long as the collapse is continued. The mucous lining of the intestinal canal, the skin, the liver, and kidneys are made to pour forth their respective secretions in profusion. Since I have recognised the superlative advantages of maintaining a protracted relaxation of the system in thoracic inflammation, I have extended the practice to other forms of phlegmasiæ, as well as to highly concentrated shapes of fever with the most happy results, as I have thereby greatly abridged their usual periods of duration, and rendered their progress comparatively lenient. In those sporadic forms of phlegmasiæ and fevers, an incipient syncope was always produced in an erect posture; the patient afterwards being placed horizontally, and the relaxation maintained for the space of 20 or 30 minutes by the subsequent flow of a few ounces of blood. All cases requiring bloodletting to deliquium, can sustain and approach to syncope, for the space of 20 or 30 minutes without hazard of producing a dangerous collapse. In the attraction of blood in the manner noticed. I have not witnessed, in a single exception, a dangerous collapse, which sometimes follows an inordinate bloodletting; nor an increased irritability, followed by violent reaction of the heart and arteries: a condition that occasionally supervenes upon excessive sanguineous evacuations. This mode of bleeding frequently renders the repetition of the lancet unnecessary; as it at once arrests the progress of inflammation in a great many cases. In one case of severe pneumonic inflammation, four pounds and a half of blood were drawn at one time, in the erect posture before syncope was produced; it was succeeded by a relaxation that continued near an hour, during which time a general secretory process was going on, and the patient recovered without the repetition of the lancet.

In this high grade of pneumonic inflammation, there was not the slightest bronchial secretion in the first stage, nor did expectoration accompany the second stage, if evacuations of blood were profuse. Physicians are disposed to attach too much importance to a copious secretion from the lungs in peripneumonia. It is regarded as a means of procuring a safe and easy resolution of the disease. I have in many instances seen the premature suspension of the lancet, from the circumstance of the super-vention of a free expectoration, when its proper employment would have prevented it, or even removed it. Why should we depend on a bronchial secretion to carry off a partially subdued inflammation of the lungs, any more than trust an imperfectly reduced phlegmasia of the other mucous membranes to an in-

creased secretion? We are thus surely exposing to imminent danger, the most important organs of the economy, by an unnecessary protraction of the inflammation. How frequently do we see the developement of tuberculous affections the result of such delays, which the judicious use of the lancet would have prevented?

There is an insidious form of pneumonic inflammation, that we frequently meet with in practice, which, without the utmost vigilance, is permitted to make dangerous advances, before sufficient bloodletting is resorted to: the symptoms are a soft and frequent pulse, vanishing upon the slightest pressure, inconsiderable pain, a free perspiration of the trunk and superior extremities; the patient lies upon his back and complains but little; has a short cough without expectoration; the breathing is frequent and short; the thorax being but very imperfectly expanded, respiration is principally executed by the diaphragm and abdominal muscles; and it is to the manner in which this function is performed, that we look to for the extent of danger as it represents the real condition of the thoracic organs. The serous textures in the first stage are not implicated, the congestion being confined to the parenchyma of the lungs; copious bloodletting renders the pulse slower and stronger, and thus unmasks the case. Patients in this situation cannot sustain bloodletting in an erect posture, as the loss of a few ounces produces syncope—though when recumbent, copious bleeding can be tolerated, not only with safety, but with advantage.

#### MEDICAL JURISPRUDENCE.

No. 3. *Of the use of the stethoscope, as a means of ascertaining the state of pregnancy.* Cases now and then present themselves, in which the medical practitioner is called on to decide, whether a female be pregnant or not.—Sometimes on account of some complication of disease of the pelvis, or abdominal visera—sometimes on account of female patients disingenuously avoiding an acknowledgment of their true situation, and endeavoring to induce their physician to believe, that, they are affected with some disease with a view of concealment, or under a hope that medical treatment, instituted for such feigned disease, may either destroy the fetus, or so impair its health, as to prevent its living after birth. In all these cases, or any that may occur, it is highly necessary that the physician be prepared to satisfy proper inquiry, or detect attempts at imposition.

Such being the importance of this subject, it was to be expected, that the modern improvements, in certain branches of

medical science, would be brought to bear upon it accordingly, Mr. J. A. Lejuneau, de Kergaradec, turned his attention to the use of the stethoscope, as a means of deciding on the question of pregnancy, by trying whether the pulsation of the fetal heart could be heard in utero—he was led to believe, that it might be employed satisfactorily, in some cases at least. Since the publication, M. Kergaradec, in 1821, the stethoscope has actually been used in Great Britain, successfully, in a case attended with some difficulty. These cases occurring now and then, and giving rise to much perplexity sometimes to practitioners, both young and old, every one should avail himself of this ready, and as yet, unsuspected tell tale, to those who would conceal; and the true reporter, to those who cannot reveal the true nature of their cases.

#### SURGICAL.

No. 4. *We translate the following singular cases, from the German Report, of the Hamburg Hospital, for 1826.* Two butchers were in the act of killing an ox—at the instant that the axe was aimed at the ox's head, he drew away from the stroke, and his companion and sincere friend, who held the ox by the horns, received the force of the axe in full swing upon his head. The wounded person, (thirty-two years,) was carried immediately to the hospital. An incision having been made, a considerable depression was seen of the parietal bones. The trephine was applied—a considerable quantity of blood was found extravasated within the bone.

The greatest care was taken to maintain quiet; antiphlogistic treatment, as well medical as dietetic, was enforced; and cold water kept constantly applied to the wound.

The patient seemed to be on the brink of the grave for three weeks, after which he gradually improved. The parts healed so completely, that, nothing remained to be noticed but the beating of the vessels of the brain. At the end of four months, he was restored to his anxious companions and friends, entirely restored to health.

It is to be regretted, that we have not been furnished with a more particular account of the symptoms and progress, of this remarkable case. Notwithstanding, the obvious danger attending this case, it affords a useful example of the circumstance noticed by Mr. John Bell, that danger, in these cases, generally arises from extensive contusion of the brain; the skull breaking freely, or being driven in by a body comparatively light, does not make so dangerous a case as general concussion.

No. 5: A remarkable case of injury of the head, is related in the reports of the Hamburg hospital for 1826; By doctor Julius. In this case, a young man aged 22, received a wound of the scalp, by a fall on the ice. He came into the hospital the next day after the injury, but, so trifling did the injury appear, and the patient being in good health, nothing was done but to apply simple dressings. After several days, the patient being considered well, and having expressed a desire to leave the hospital, began suddenly, on the 14th day to complain, of severe symptoms of injury of the head, which very rapidly grew worse. The trephine was applied, and discovered a considerable quantity of pus under the dura mater. But, notwithstanding its removal, nothing seemed to benefit him, and he died on the 17th day after his admission.

We had occasion to remark, in the body of this number of our Journal, the extraordinary fact of a very great number of cases of fracture, admitted in the Surgical hospital at Edinburgh. In turning our attention to the reports of the Hamburg hospital, for 1826 and 1827, we find, in the infancy almost of that institution, viz: 1826, there were admitted 64 cases of fracture, and in the succeeding year, 115. It may not be amiss to notice, however, that these include a few fractures of the fingers, &c.

No. 6. *Observations concerning a method of breaking down stone in the bladder, suggested by Professor L. Jacobson.* Translated from the Hamburg Magazin der ausländischen Literatur, &c. for November and December, 1830. The meeting of naturalists, which took place here this autumn, afforded us some intimation of an invention by Professor Jacobson, of Copenhagen, who is equally distinguished as a naturalist, physician, and surgeon. He has invented an instrument for breaking down stone in the bladder, and sometimes extracting the fragments. In the review of the transactions of the Royal Danish Academy of Science, he has imparted a short statement, from which report the following is extracted.

"Professor Jacobson, furnished the convention with the continuation of his labors, concerning the grinding down the calculus in the bladder."

"As the instruments, which have hitherto been proposed and used, are formed of prongs, which are inclosed in tubes, so they are either of a complicated character, or of difficult introduction and not easily managed, because they are straight and thick, and on account of the necessity of previously dilating the urethra with bougies.

"Lastly from the opening and closing of the prongs, the skin of the bladder may be taken hold of at the same time with the



stone, and the division of the stone must be slow, should it occur either in boring it through, or in breaking it down."

"These instruments have, therefore, not reached that perfection, which is desired, and consequently will bear much alteration."

"Professor Jacobson, has turned his attention for some time to the subject, and exhibited, in the year 1826, an instrument invented by himself, whose object is to extract small stones from the bladder, to the Royal Medical Society. This instrument he has in some degree improved, and it now appears practicable to comminute stones in the bladder and extract the pieces."

"This instrument is constructed on principles entirely different from any hitherto invented: since it is neither straight, nor does it consist of prongs. Its size and curve, answer to the form and shape of the urethra; and can be introduced without difficulty or pain into the bladder. The bladder can be easily sounded with it, and the mode of its opening and closing is such, that there is no danger of its including the skin of the bladder. The stone can be readily seized, and its dimensions known. It possesses the remarkable advantage, that the stone can be easily broken down, and the small fragments easily drawn out."

"The professor hopes that, by the employment of this instrument, patients afflicted with calculus, which has not advanced to any great extent, and where the bladder has not suffered much, can be relieved; but he particularly expects much benefit from its employment, in patients, afflicted with gravel, and where a small stone, which has passed into the bladder, and has grown to such a size, that the bladder has no longer the power of expelling it through the urethra. If the instrument is employed in such cases, such a stone may be easily broken down, and a lingering and dangerous disease be prevented."

Professor J. has, as he states, been afterwards induced to impart his invention to the Parisian academy of science, and solicit their opinion concerning it. This prevented him from laying it before the meeting assembled here, he thought proper, however, to show in the presence of a few familiar acquaintances, the use of his instrument in the hospital on the dead and living body.

From the importance of the subject, the reviewer considers it a duty, to furnish a description, so far as it is possible from recollection, (with the permission of Professor J.)

The instrument which Professor J. uses, has the shape of a common catheter, of the thickest kind, and is formed of a straight tube of about eight inches in length, with a strong iron rod, constituted of three pieces, having the curve of a common

catheter, a small clew and a female screw, with wings. The tube is somewhat oval, with one end fastened to the clew. One portion of the rod is formed like a catheter, cut lengthwise, in its whole length, therefore, upon the concave side, it is a roundish oval, on the convex flat, and grooved in the lowest part, which is introduced into the tube. At the point of the rod, at the end of the curve, there is fastened another, by means of a hinge, made with great care, of from an inch and a half to two inches in length, which passes upon the upper part of the curve, in as much as it is flat upon its concave side, whilst it is rounded off in an oval shape upon its convex side: at the lower end, is this small piece with a long rod likewise united by means of a hinge, this runs upon the upper part of the first rod, is therefore flat on one side, on the other half round, and on its straight end round beneath, and passing off in a long screw. Both the long pieces, pass through the tube, but are so much condensed on the projecting curved part, as well as the third small part, that they run into one along with the external surface of the tube. The worm of the screw, on one rod runs through a hole in the clew, which is fast so far as the tube, and goes beyond it several inches and passes upon the winged female screw. Now it can be easily seen, that when the end of the screw is pushed forward through the tube towards the bend, after having drawn back the female screw, by means of the double-hinge, between the three rods, a triangle is formed. If the screw is drawn back, and the whole closed, it has the appearance of an ordinary catheter, on whose straight end there is a clew, and on the opposite a female screw. The instrument can be introduced into the bladder like a common catheter, in order to seek for the stone: if it is now opened, a kind of a triangular loop is obtained, in which the stone can be seized, and very readily, because from the shape of the triangle, one of its points passes more into the posterior part of the fundus of the bladder, the usual retreat of the stone, as an ordinary round or a straight one. When it is believed that the stone is fastened in the triangle, we can be convinced of it by the light drawing of the screw, and it is found, that this cannot be brought again to its usual length: so when we are confident that the stone is fastened, the box must now be pushed somewhat forward, till it becomes fixed in the triangular loop. We can now form some idea of its size, or at least the diameter of the seized part.

The screw-box is now drawn tighter, so that the stone will be mashed down between the three steel prongs, which are notched a little on their flat side, and it may be supposed, that we may use as much force as we please, since we are only limited by the cohesive power of the iron, as no particular tempering which may probably cause brittleness is necessary. The skin of the

bladder is in no danger as only the two free points of the triangle can come in contact with it; but these and their hinges are so rounded off and finished in such a manner, that they cannot wound it nor enclose it.

Professor Jacobson, shewed first the use of the instrument on the dead body. It appears to act best when the bladder is full. He placed bits of brick in the bladder, and these were mashed down with great facility, as well as other stones, harder than ordinary calculi. And it was apparent that after the stones were broken down, the instrument could be closed so as to be drawn out. It could be also opened in the bladder and free itself of the bits of stone, if they prevented it from being drawn out.

As there was a patient with stone in the hospital, Professor J. tried his instrument, with the permission of doctor Fricke. The operation was performed without pain, and with great facility, and the stone a half an inch in diameter was taken hold of. It was so easily mashed down, that the prongs soon became in contact with one another, whereupon Professor J. opened again the instrument, fastened again the stone or its fragments broke them down, and repeated the same operation once more: on the drawing out of the instruments there were portions of the stone ground to powder lying in the prongs.

The patient suffered no pain during the operation, and left the bed immediately afterwards. On this day many pieces of the stone passed away with the urine, one of the size of the half of a large pea, showing plainly, that it had been broken off from the nucleus. Two days afterwards Professor J. repeated the operation and broke down many bits of stone. The patient felt himself much relieved, and although he was not altogether relieved of the stone, was desirous of leaving the hospital.

Professor Jacobson, remarked in respect to his practice, that there is nothing to be feared from the increase of the number of stones in the bladder, as experience teaches, that many stones do not cause more suffering than one. He purposes giving a description of his method (which he calls *methodus lithoclastica*,\*) more in detail. He seems to think, however, that it will be useful only in cases of small stones, but that it will render the dangerous operation of lithotomy, necessary only in a few cases. The reviewer believes, that the inventor is really too modest, and too fearful of falling into the errors of the sanguine French. The reviewer seems to prefer this method to the similar one of civilale, as its use is readily attainable by surgeons, whilst the other requires much practice. A preference appears also from its cheapness, and the facility of manufacturing it; another on ac-

\*From *κλασις*.

count of its safety to the bladder, and the little liability of its breaking, but in case of its fracturing, which could only happen to the hinges, the parts would still hold together so as to be withdrawn. In cases of large stone, the instrument would be serviceable in breaking off from time to time pieces of stone, and thereby gradually diminish it in volume, until the nucleus itself could be taken hold of. We sincerely wish, that the inventor may receive an impartial decision from the French academy, when we hope to receive an accurate description of his instrument accompanied with drawings, and of his method confirmed by further experience."

We have taken no little pains to understand the precise construction of the instrument invented by our talented friend, Professor Jacobson. But we have to confess, that we have some misgivings, whether we clearly understand the construction, and action of the instrument. It is, however, clearly obvious, that, by his plan of construction, a triangle is formed by means of three iron rods, which form a round staff that passes through a straight tube, but end in the curve similar to the catheter, and that this triangle is to be used instead of the grappling prongs of the French instrument.

The present writer has never considered lithontrity in so favorable a light as many others. That there are cases in which, men of proper experience and practice, may operate by this method to great advantage, we have no doubt, but that it is almost painless we never did believe; and, unfortunately it only comes to our relief in cases the most susceptible of relief, by the ordinary operation. Our own experiments with the lithonriptor upon the living body, and our reading, teach us, that much difficulty arises from the pain occasioned by the prongs of the triangular grapple. We feel persuaded, that this difficulty must be much lessened by the contrivance of Professor J.; and the curved formed of the instrument, will also be an important improvement. Upon the whole, we long to see a drawing of the instrument, and have hopes it will be found greatly useful.

### WASHINGTON MEDICAL COLLEGE OF BALTIMORE.

The usual courses of lectures will commence on the last Monday of October next, and continue four months.

HORATIO G. JAMISON, M. D. on Surgery and Surgical Anatomy.  
SAM'L K. JENNINGS, M. D. Materia Medica and Therapeutics.  
WM. W. HANBY, M. D. Obstetrics and the diseases of women and children.  
JAMES H. MILLER, M. D. Theory and Practice of Medicine.  
SAM'L ANNAN, M. D. Anatomy and Physiology.  
JAMES B. ROGERS, M. D. Chemistry.

The faculty of this institution have resolved, that they will adopt regulations similar to those of the medical college connected with the University of Maryland, that is to say, they require that each student, before he can become a candidate, shall attend lectures two winters; and during that time take all the tickets once. A course in any other respectable college, will be considered equal to one in this.

The fees are each ticket \$15. Matriculation ticket \$5. For dissecting rooms \$5. Diplomas \$10.

### EXCHANGE LIST.

The following is a list of the Journals now received in exchange for the Maryland Medical Recorder.

The Medico-Chirurgical Review and Journal of Practical Medicine. London.

The American Journal of Medical Sciences. Phila.

Magazin der ausländischen Literatur der gesammten Heilkunde und Arbeiten des aertzlichen vereins zu Hamburg.

Zeitschrift für die ophthalmologie. Dresden.

Bibliothek for Lager. Copenhagen.

Zeitung für des gesammte Medicinalwesen: This periodical was put into the editor's hands at Hamburg. Leipzig.

Litterarische Annalen der gesammten Heilkunde. Berlin.

The Transylvania Journal of Medicine and the associated Sciences. Lexington.

The North American Medical and Surgical Journal. Phila.

Edinburgh Medical and Surgical Journal.

Several other periodicals are expected from Europe.

*Received since last number.*

Tate on Hysteria.

Tweedie on Fever.

S. Smith on Fever.

THE  
MARYLAND  
MEDICAL RECORDER.

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ORIGINAL ESSAYS.

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ART. I. *Observations upon Pulmonary Consumption, with a view to inquire into the sanative influence of certain new remedies in the treatment of that disease.*

[THE Edinburgh Medical and Surgical Journal, for April, 1831, notices the following works upon pulmonary consumption; and, knowing as we do, that no small share of interest and anxiety prevails among the profession, on the subject involved in those works, we feel it a duty to present to our readers the remarks of the Edinburgh reviewer, on the merits of some reputed remedies for true pulmonary consumption.]

“A dissertation on the influence of heat and humidity; with practical observations on the inhalation of iodine and various vapors, in consumption, catarrh, croup, asthma, and other diseases. By James Murray, M. D. member of the Royal College of Surgeons, London, &c. Longman & Co. London, 1829.”

“A treatise on pulmonary consumption, its prevention, and remedy. By John Murray, member of various societies. Whitaker & Co. London, 1830.”

“Two memoirs read before l'Académie Royale des Sciences, at Paris, on the successful inhalation of diluted chlorine in the early stages of pulmonary consumption; as a remedy capable of prolonging life, and of alleviating distressing symptoms in the more advanced stages of that complaint; with cases illustrating, &c.

Translated from the French of M. Gannal. By William Horatio Potter, M. R. J. operative chemist Callow & Wilson, London, 1830."

"Remarks on a new and important remedy in consumptive diseases; with a description of an apparatus for the easy and domestic employment of a medicated atmosphere, in cases of impeded respiration. By John Doddridge Humphreys, Surgeon. Kidd, & Co. London, 1831."

"Cases illustrative of the efficacy of various medicines, administered by inhalation in pulmonary consumption; in certain morbid states of the trachea and bronchial tubes, attended with distressing cough; and in asthma. By Sir Charles Scudamore, M. D. F. R. S. Longman & Co. London, (the year of publication not noticed, but as it is down last, we presume it was published in the present, 1831.)

The reviewer of those works says, "if patients continue to die of consumption in this kingdom, at the rate of many thousands annually, it is not for want of new books on the treatment of it. Here the five different methods of cure never thought of before, which have all been discovered, or at least publicly announced, in the course of two years, and which the discoverers, although they do not go so far as to consider them infallible, nevertheless, evidently desire the world to believe will make a serious impression on the mortality occasioned by this frightful scourge. Mr. John Murray proposes to cure it with the chlorate of potash. M. Gannal expects to do so by making the patients inhale chlorine. Doctor Murray entertains equally sanguine hopes of success from the inhalation of iodine. Sir Charles Scudamore adopts doctor Murray's proposal, and stamps it his own by adding to the iodine the aqueous fumes of certain narcotic drugs. And lastly, Mr. Humphreys constructs a canopy, under which he shrouds his patient's head, and insinuates various medicinal steams, with the conviction that he has thus succeeded in devising an equivalent for the balmy airs of Madeira.

Mr. Murray is not of the medical profession, but, stepping forth in the pure capacity of a philanthropist, implores merciful treatment at the hands of those on whose province he ventures to encroach. He is consequently not a fair object for any severity of criticism; and therefore, all we shall say of his treatise and its treatment is, that we have in vain searched the former for a sufficient body of facts to warrant his sanguine hopes, and have made actual trial of the latter without being able to remark any operation, either therapeutic or physiological, from the dose he recommends. Mr. Humphreys may be set aside more summarily; for as he takes care to tell the reader, that his canopy is

to be found at such a place, and himself at such an hour of certain days of the week, we presume his book is intended simply to advertise who, what, and where he is. The three remaining works, although not equal in point of pretension to the two former, are worthy of some consideration, on account both of their authors and their subjects.

Every person of common sense will allow, that there is no disease which may be made the subject of therapeutic experiments, with so much propriety as consumption. The hopelessness of every case and inefficacy of every known treatment, wherever the disease has been unequivocally ascertained to exist, will justify every kind of experiment in search of a new remedy. It is likewise reasonable to presume, that if the search is to prove successful at all, there is a greater likelihood of its arriving at so desirable a termination, among the class of substances which admit of being directly applied to the diseased organ, than among any other description of articles in the *materia medica*. For these reasons M. Gannal, doctor Murray, and Sir C. Scudamore, are sufficiently justified in their attempts, to discover a remedy among gases and vaporizable substances, which are capable of being brought by inhalation, into immediate contact with the diseased structure of the lungs; and we may add, that it was even natural to fix first upon chlorine and iodine—on the former, because it has been fully proved to possess considerable power in altering the morbid secretions of mucous membranes, and the surfaces of ill-conditioned ulcers—on the latter, because it has been tried as a remedy for almost all other incurable diseases, and has been found to possess a singular action on morbid enlargements of glands, to which some persons may still, perhaps, believe that pulmonary tubercles bear a distant resemblance.

But the article for the experiment being once fixed on, the same reasons will not warrant the determination, at which our authors seem to have arrived, to find the said article a useful remedy. In experimenting on a disease, which has hitherto proved almost invariably fatal under every kind of treatment, and of which the diagnosis, at the stage when alone it can be expected to yield to treatment, is uncertain; we should expect that the experimentalist, if he is imbued with the true spirit of philosophical inquiry, which appears to be gaining ground rapidly in medical science, would not only proceed to his task with an unprejudiced mind, but likewise give a wide extension to his researches, where subjects of experiment are to be had so easily in every quarter, and exhibit his success in a situation where the public might have practical proof of its reality. All this may easily be accomplished with a real remedy, and unless these



conditions are observed, the public, like ourselves, will, we trust, place no confidence in the statements of authors, whose manner of procedure entitles them to no better designation than that of hasty projectors.

It was scarcely to be anticipated, that one who thought his lucubrations worthy of occupying the time of the Parisian Academy of Sciences—or another who bears the high title of honorary member of Trinity College, Dublin—not to mention a mere doctor of medicine—should appear so unacquainted with the common rules of evidence, as to conceive, that the few imperfect facts contained in their treatises, justify the vast and important conclusions which they desire the reader to draw from them.

Doctor Murray, talking of the inhalation of iodine, says in his preface, that, “if he had not abundant proofs of its value, he would not be the first to propose it,” that “it will sometimes heal if early applied, and will give rest and repose and relief in cases where it is impossible to cure.” And subsequently he states in terms still more commendatory, that “it is capable of procuring decided relief from pain, and disposing the patient to repose, when the tubercular nodules have suppurated in the centre, and open into the neighboring bronchiæ, or when they unite into large abscesses;” that then “the free use of iodine in vapor has improved the condition of the parts, so as to alter the discharge and where the cavities were not extensive, or the tubercles opening in successive crops, restoration to health has sometimes taken place.” p. 255. Yet notwithstanding this affectation of refinement in diagnosis, which no man ever dreamed before of aiming at, and notwithstanding these extravagant encomiums, bestowed by himself on his discovery—which is the amount of facts contained in his book? So far as we can discover, a single case only, (p. 256,) which we beg leave to observe, no physician could distinguish by the author’s narrative, from a case of chronic peripneumony, or of chronic pleurisy united with catarrh, and which he winds up by leaving the patient merely in a state of “improvement particularly encouraging.” Does doctor Murray seriously expect to force his opinions on the public with such means, even aided by the threats of literary revenge, which, with equal good sense and politeness, he announces in his preface as ready for those who do not coincide with him?

M. Gannal, who prefers chlorine to iodine, terminates his essays with conclusions nearly the same with those of doctor Murray. He infers from his experience, that the inhalation of chlorine is perfectly safe; that in advanced incurable cases of phthisis it affords relief and prolongs life, and that, “in cases where other medicinal aids were of no avail, it succeeded in

effecting a cure in a longer or shorter interval;" and his translator, echoing and expanding this assertion, observes that M. Gannal's memoirs "prove in an incontestible manner, that chlorine gas, diluted with a large proportion of common air, and softened farther by its combination with aqueous vapor, is a powerful therapeutic means of cicatrizing ulcers of the lungs where they exist, and preventing their formation when a predisposition is indicated." But what is the amount of experience to justify this extravagant commendation.

In his first memoir three cases are succinctly related. The first of these, a man of forty, was pronounced by Laennec's nephew to have tubercles in the upper part of the right lung, because he remarked dullness of sound of percussion, cavernous respiration, and crackling r  le. After inhaling chlorine for a week, the purulent expectoration became mucous, the oppression of the breathing abated, the diarrh  a ceased, and the appetite returned. In the course of two months more he had slight relapses; but in the end his state improved still farther, the dyspn  a disappeared, the night sweats became less frequent, and the pulse fell to 62. Now, is there evidence in this statement of the man having had tubercular phthisis? And if in a matter of such vital importance as the main point in question undoubtedly is, the answer must be given in the negative. The stethoscopic signs are scarcely sufficient to prove unequivocally the existence of tubercles; and if we understand the narrative correctly, it leaves the patient coughing, expectorating mucus, and sweating occasionally at night.—The second case we are merely told was judged by his physician to be incurable. After the use of chlorine the cough became less frequent, and the sputa, from purulent, became first muco-purulent, and then more nearly mucous. But about this time the patient imprudently exposed himself to cold, became much worse, and soon fell into a hopeless condition,—in which the narrative leaves him.—The third case is also related very imperfectly. The patient had troublesome cough, purulent expectoration, a dull sound on percussion in the upper part of the left side of the chest, and in consequence had been advised to repair to a warmer climate. After the use of chlorine, the cough and expectoration diminished, the appetite and strength improved, the peculiar sound in the left lung ceased, and, at the date of the publication of the memoir, "every thing showed fair for a speedy restoration." Supposing a cure was accomplished in either of these cases, does M. Gannal bring forward even presumptive evidence that they were genuine cases of tubercles in the lungs? We must reply, that, for our own part, we should never be satisfied with such a diagnosis. Yet

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this is the whole amount of the evidence with which the author ventures before the most learned and scientific body in Europe, and endeavors to convince it that he can cure consumption.

In his second memoir, he traces three cases throughout their farther progress, and several more. The two first mentioned in his earlier memoir terminated fatally. The third recovered completely, and went to Belgium, from which his physician writes to M. Gannal, that "he enjoys the best possible health in every respect;" and that "it might almost be doubted whether his chest was ever affected, so free at present are his respiration and speaking, notwithstanding rather hard exercise, and a regimen not quite in accordance with the laws of health." The fourth was a case of well ascertained phthisis, which received some benefit from inhaling the chlorine, but, nevertheless, pursued the ordinary course, and ended fatally. The fifth was considered a case of advanced and hopeless phthisis, where, however, after inhalation was continued for some time, the purulent expectoration ceased, the cough abated, the appetite returned, and the patient regained strength materially, but was not regarded by his physician as freed from the disease. The sixth case is an attack upon a doctor Laroque for not supplying the author, when requested, with the facts required to enable him to draw up an account of an instance of alleged complete cure. In the seventh, relief was obtained from the use of chlorine, and life apparently prolonged, but the termination was eventually fatal. The eighth and last was considered by the medical attendant a genuine case of phthisis. The stethoscopic indications were a mucous râle of wheezing, not far from the right clavicle, with dullness of sound on percussion around the spot, over the whole upper third of that side of the chest. After the use of chlorine, the general phthisical symptoms abated materially, and the patient's strength was greatly improved; but in the right side there was distinct pectoriloquy, so that, although the relater, a friend of M. Gannal, seems to anticipate a permanent cure, he does not go so far as to allege that it has actually been effected.

Here then are eight cases; of which four ended fatally; two experienced such amendment as the physician is accustomed to witness from other treatment, but at the date of the publication of the memoir, were considered in a doubtful state; one is alleged to have recovered, but the data in support of the assertion cannot be procured; and one (case 3,) is an apparent instance of complete recovery, but the only proof of the existence of tubercular phthisis consists in the presence of the general symptoms of that malady, which it is unnecessary for us to say are considered in the present day wholly insufficient to establish a diagnosis, together with circumscribed dullness of sound on percus-

sion in one side of the chest, which we may also venture to say no stethoscopist worthy of the name will pretend to call sufficient evidence of the presence of tubercles, more especially in a question of so much importance as that of a supposed cure. We see no reason, then, to believe that M. Gannal, has even proved presumptively a single case of ultimate, and permanent success from his treatment; and it may be well imagined that he has brought forward the most favorable examples which his experience could furnish.

To the memoirs of M. Gannal, his translator has appended the details of an additional case of apparent cure by M. Costa; and it is but justice to admit, that we should depart from that impartiality of judgment which ought always to govern us, if we did not grant that the narrative supplies strong presumption of a complete cure of a genuine case of phthisis having been actually accomplished. On this account we shall present an abstract of it.

The patient was a young lady, twenty-eight years of age, tall in stature, of contracted chest, and delicate habit, and of a family in which two brothers had died of pulmonary diseases. She had when M. Costa first saw her, frequent cough, copious expectoration of mucus, with lumpy matter, and occasionally blood, great oppression of the breathing on motion, daily rigors, with nightly sweats, loss of appetite, much emaciation, and suppressed catamenia. The antero-superior part of the left side of the chest sounded dull, and presented a complete absence of respiratory murmur. These complaints were of five weeks standing. From the 12th, till the 30th of March, no particular change occurred under the ordinary palliative treatment of phthisis. In early weeks of April, the expectoration became homogenous, and exhaled the murine or musty odor which some consider characteristic of the formation of tubercles. At the same time the other symptoms became worse; and at the part of the chest which sounded dull, there was a slight-mucous r le and imperfect pectoriloquy. At the end of the same month, the pectoriloquy was more distinct and extensive, the respiratory sound from the description appears to have been cavernous r le, and over the region of these sounds, the sound on percussion was now hollow. Supposing M. Costa to be skilful in the use of the stethoscope and percussion, which we have neither means of knowing nor reason to doubt, there is in this narrative as complete evidence of a phthisical cavity having been formed as can possibly be procured.—Seeing the inutility of his previous treatment, M. Costa resorted to the inhalation of the vapor of the warm solution of chloride of lime much diluted. In six days the sputa and sweats were considerably abated, and the former free of fetor. Five days later the chloride was suspended on account

of a sudden increase of fever, with pain of chest; and the expectoration soon recovered its original ill-conditioned qualities. On the 20th of May, the inhalation was resumed and persevered in till near the end of June. In ten days, the expectoration became less abundant and of better character, and besides other important ameliorations, the pectoriloquy was more circumscribed. In the middle of June, the catamenia reappeared, the night sweats ceased; the expectoration was a clear, insipid, scanty mucus, the pectoriloquy ceased altogether, and the natural respiratory r le began to be heard in the portion of the chest where it was wholly absent two months before. Towards the end of the same month, the whole of this part of the lung was pervious, except "a very small part corresponding to the centre of the second rib, which M. Costa looked upon as the cicatrix left by the obliteration of the cavity. During all this period, the young lady's general health and strength progressively improved; she married in October, afterwards became pregnant, and finally was brought to bed of a fine child, without any injury of her health; so that M. Costa thinks himself fully authorized to consider her cure as complete and permanent.

Any objections which we might urge against this interesting case would be called cavilling by the believers in the virtues of chlorine. We shall, therefore, refrain from starting certain difficulties which might be brought against it as an evidence of a cure; and on the contrary will admit, that if M. Gannal had not been hurried away by that growing curse of medical literature, the rage for premature publication, but had quietly waited till he accumulated a body of similar facts, he would have gone far to establish the utility of this remedy, and his own claim for immortality, neither of which is likely to receive much support from two memoirs.

Let us now turn to iodine, and see what Sir C. Scudamore has to say of its virtues in consumption. He administers it in the way of inhalation; together with hemlock, stramonium, or hydrocyanic acid, and combines with this treatment the administration of acetate of morphia, digitalis, stimulant friction of the chest, and a careful regulation of the diet and external temperature. This system of treatment, he says, "is remarkably successful in chronic bronchitis, gives relief to the asthmatic patient, proves often curative in cases of phthisis pulmonalis, not become desperate in their nature, and is capable of much useful influence even in those extreme examples of the disease which too probably admit only of alleviation, and seem to bid defiance to the ordinary rules of practice." We shall now state succinctly the facts adduced by him in support of his statement, confining our attention at

present to phthisis, in order not to interrupt the thread of our inquiry.

The cases of phthisis he gives are eight in number. The first, second, seventh, and eighth, were cases of advanced phthisis, in which the inhalation of iodine and hemlock, with the use of morphia internally, and stimulant friction of the chest, appeared to afford relief by lessening the cough, facilitating expectoration, and removing dyspnœa,—but which proved fatal in the usual manner.—The third was the case of a female, debilitated by repeated miscarriages, affected with cough of four years standing, considerable puriform expectoration, and hectic fever, and in whom there was dullness on percussion in the upper part of the right side of the chest, with distinct pectoriloquy at the apex of the lung, and obscure gurgling. The author's treatment having been enforced for three months, she recovered so completely that it was considered unnecessary to continue the inhalation and other remedies, and some time afterwards was reported to be in perfect health. No account, however, is given of the progress of the stethoscopic indications; and these, as stated by Sir Charles at the commencement, are equivocal.—The fourth was an instance of inveterate cough in a middle aged female, with hectic fever, extreme emaciation, and difficult expectoration of muco-purulent matter. In the right arm-pit, and outer end of the clavicle there was more resonance (of the voice?) than in the corresponding quarters of the left side, more dullness under the right than under the left clavicle, mucous and sibilant râle on the right side, mucous râle on the left side, but no pectoriloquy. After the author's treatment had been put in force for three weeks, "the patient was satisfactorily convalescent; in the course of a few weeks more she was quite well; and she continued so six months afterwards. Sir Charles thinks the existence of tubercles highly probable; but we see no sufficient reason for even the latter opinion. The signs derived from percussion alone are altogether equivocal. Chronic catarrh, and still more this combined with an old circumscribed peripneumony, or a dense circumscribed pleuritic effusion, would afford all the indications given in the narrative. The fifth case was that of a gentleman, who had been liable to winter colds for five years, and who at length became affected with frequent hard dry cough, emaciation, and night sweats. In the upper part of the right side of the chest there was remarkable resonance of the voice, and obscurity of the respiration, with dullness on percussion; while in the corresponding part of the left side these signs were wanting. Under Sir C. Scudamore's treatment, the cough almost disappeared, the night sweats ceased, the breathing became free, the respiratory murmur more distinct, and the sound on percussion clear, so that

in the course of two months, treatment was discontinued. Sir Charles designates this a case of "chronic cough apparently depending on tubercular irritation;" but the signs are surely much too insignificant to justify even this diagnostic opinion.—Case sixth is entitled, "tubercles in each lung, great probability of an ulcer at the apex of the right lung." The subject was an elderly gentleman, whose pulmonary complaint commenced with considerable hæmoptysis, and who evidently had an imperfectly formed hectic, with night perspirations, frequent cough, and copious greenish expectoration. There was general dullness on percussion over the right side, especially at the upper part, and also at the upper part of the left lung; and there was distinct pectoriloquy at the apex of the right, with doubtful pectoriloquy at the apex of the left lung. Under the usual treatment the sputa became clear mucus, and the night perspiration ceased in three weeks, while at the same time his general health and strength improved amazingly. His convalescence went on from that time steadily, and at the end of four months he could walk easily six or seven miles. This case the author "adverts to with infinite satisfaction, as proving the great benefit of iodine inhalation," and as one in which he "had the fullest persuasion of the existence of tubercles, and could scarcely doubt the presence of some ulceration." But we apprehend no cautious and practised stethoscopist would come to such conclusions with similar data.

These are the facts upon which Sir C. Scudamore, founds his conviction of the sanability of consumption by the inhalation of iodine and certain narcotic vapors. Of the eight cases, four proved fatal; and in the remaining four, the existence of tubercles and tubercular cavities is considered even by the author only probable, or at best very probable. Granting that he is correct in considering their existence probable, we could scarcely have believed that a member of the regular profession, of the years and station of the author, could have stepped before the public with this, as the sole proof of his having discovered a remedy for a disease hitherto considered almost incurable. Viewed according to the principles of evidence, four probable cures constitute no proof whatever. Besides, the grounds on which he considers the cures probable may be seriously called in question. The conclusiveness of the cases depends mainly on the skill with which the stethoscopic signs, and those drawn from percussion of the chest were elicited. Now we conceive that a careful investigation of his narrative will very nearly convince any person practised in the employment of these diagnostic means, that, in the present instance, the requisite skill was not possessed by the observer. Among other proofs of this, it will be remarked, that in relating the indications of cavities in the

lungs, he scarcely ever mentions any other sign than pectoriloquy and dullness on percussion. Now, he ought to be aware, that without other signs, these two are extremely fallacious—that in many individuals, it is very difficult to distinguish between bronchophony and pectoriloquy—and that there is scarcely a single case in his book, in which his supposed signs of a cavity in the lungs, might not have arisen from simple condensation of a part of the organ in the neighbourhood of a bronchial tube of a moderate size. For one who appears to have paid some attention to the subject, it is a strange omission that no mention is made in a single instance of the characteristic signs—cavernous respiration, and cavernous râle.

Let it not be supposed, from the terms in which we have commented on the treatises of doctor Murray, M. Gannal, and Sir C. Scudamore, that we hold their labors and the remedies they recommend, as of no value. On the contrary, we advise every reader to peruse what they have written; for undoubtedly, they make out a strong case in favor of the palliative effects of chlorine and iodine in consumption, and of the propriety of subjecting both to farther trial, as the means of accomplishing a cure. They farther show, more especially Sir C. Scudamore, that the inhalation of the narcotic class, may be resorted to with success in other diseases of the lungs, such as chronic bronchitis, and all the variety of maladies usually comprehended in vulgar speech under the name of asthma. In such diseases, they show that iodine in particular facilitates expectoration, brings it to the state of clear mucus, lessens cough, diminishes dyspnoea, and promotes sleep and appetite. These objects may certainly be in general attained by other means. But it is well for the practitioner to be put in possession of new resources, especially if the new remedy be so much superior as its proposer conceives, in celerity and efficacy of operation.

But we would request that those who, in consequence of what has been already done, may feel encouraged to make farther trial of the said remedies for the cure of consumption, will consider they are experimenting on a disease which rarely ends otherwise than fatally—that therefore they must not suppose the public or their professional brethren, will be imposed on by the pompous announcement of extensive conclusions founded on a handful of imperfect facts—they will make their observations on a scale of extent conformable to the facility of finding proper objects, as well as the vast importance of the result which every one must anxiously hope for—and that their observations be all conducted with an undeviating attention to the whole means of diagnosis, which the late researches of pathologists have placed in the hands of the physicians.



The method of administering chlorine, by inhalation, consists, according to M. Gannal, in adapting to a pint bottle with a wide mouth, a cork containing two glass tubes open at both ends, and nearly half an inch in diameter; of which one just enters within the cork, and has a rectangular bend outside to enable the patient to hold it conveniently with his lips; while the other is straight and plunges under the medicated fluid in the bottle.—The liquid should be about four ounces, and ought to contain from five to ten drops of a concentrated solution of chlorine, which dose may be progressively increased, even so high as twenty-five drops, and may be used six or eight times a-day. The water must be heated to 100° or 110°, and preserved at that temperature during the inhalation, by covering it with some woollen article.

As to the method of administering iodine, Sir C. Scudamore simply informs his brethren, that he dissolves the iodine in a solution of hydriodate of potass, and adds a little alcohol when he dilutes this solution, in order to prevent the iodine from being thrown down. But he does not consider it safe to detail his precise method or proper dose, because he professes to be afraid that patients might be inclined to make experiments on themselves, without the direction of a physician, and so incur much risk by reason of the great activity and poisonous qualities of the drug. This is, in our humble judgment, a very unnecessary exercise of caution. Are not patients put in possession of the means of making such experiments when they please, with fifty other drugs of even greater potency than iodine? We fear there are many among Sir Charles' readers, who will be led by his silence to a very different interpretation from what he apparently intends should be put on it. Doctor Murray uses a solution of five grains of iodine in two quarts of water, at the temperature of 160°; and the patient is instructed to breathe over a vessel containing the solution, the head and vessel being covered over. A much better plan will be to use such an inhaler as that recommended for chlorine by M. Gannal; and from what we have ourselves observed in the healthy subject, we should imagine that a solution of one grain of hydriodate of potass and a quarter of a grain of iodine in four ounces of water would be sufficient to begin with.

[*Further account of the sanative effects of the inhalation of chlorine in consumption.*—The Edinburgh Medical and Surgical Journal, vol. 35, page 438, gives the following cases, from the Archives Générales de Médecine. November, 1830, with a few remarks.]

Since the analysis of the treatise of M. Gannal, Sir C. Scudamore, and others, in the inhalation of the chlorine and iodine in

consumption was introduced into the review department of this Journal, a very important paper on the subject, by M. Cottureau, has come under our notice, of which we shall here give an abstract. The paper contains the details of thirteen cases of apparent cure; in most of which the existence of tubercular phthisis with tubercular excavations was proved, not only by general symptoms, but likewise by the stethoscopic indications; and in one of them the healing up of a cavity was proved some time after the cure was accomplished, by the examination of the body after death from continued fever. We shall present an abstract of each case, leaving out of view the general symptoms, which were as marked in all of them as appears necessary to convince every one that the essential features of phthisis were present, and passing over likewise the details of the treatment, as to which M. Cottureau advances nothing new; and we shall give merely a sketch of the symptoms before and after cure, elicited by percussion and the stethoscope, as being the only evidence of the true nature of the disease which can be admitted to decide the question at issue.

*Case I.* Is the same which has been noticed in page 376 of this journal, from the treatise of M. Gannal.

*Case II.* A delicate female, wife of a physician. Towards the end of April 1828, the respiratory murmur was found to be wholly wanting in the summit of the right lung, where, both before, behind, and in the axilla, the sound of the voice was intermediate between bronchophony and pectoriloquy. In the left side there was dullness on percussion over the upper two-thirds. Both sides presented very generally mucous r  le. On the 1st of June there remained only slight dullness of sound on the left side, and slight bronchophony with mucous r  le on the right. After this no stethoscopic examination was made; but the lady soon got well, and continued so in November, 1830.

*Case III.* An officer's lady, both of whose parents died of phthisis. In the middle of June, 1828, there was crackling r  le, sometimes dry, sometimes moist, in the lower region of the left lung, dullness on percussion, cavernous r  le and feeble pectoriloquy in the upper part of the same lung, and sonorous r  le in its middle posterior region. About the middle of August the dullness of sound on percussion was less, and the sonorous r  le behind, much diminished; but the other stethoscopic signs were unaltered. In the middle of September, there was no longer either crackling or cavernous r  le, and the pectoriloquy had become doubtful; and at the end of the month there was neither pectoriloquy nor dullness on percussion. At the close of October she was free of complaint.

*Case IV.* A young Spanish gentleman, whose mother, as well as two of her children, died of phthisis, presented on the middle of July, 1828, along with the general symptoms of the disease, the following auscultatory signs:—under the left clavicle a slight cavernous râle, with doubtful pectoriloquy and dullness on percussion around this spot to the distance of two inches on every side. In the middle of October there was no longer any pectoriloquy or cavernous râle, and the dullness of sound on percussion was much more limited. At the end of that month the sound on percussion was every where natural, and the natural respiratory murmur was heard in every part of the lung. About a month afterwards he had a return of the general pectoral symptoms, which had previously ceased altogether, but there was no return of the phthisical indications supplied by the stethoscope on percussion, and he again got quite well in the course of December. From that period he has continued free of complaint.

*Case V.* A merchant, 35 years old of spare habit, and liable to symptoms of impending phthisis for fifteen years, presented towards the end of August, 1828, the following symptoms:—Dullness of percussion in the whole posterior surface of the left side of the chest, also remarked anteriorly, though much less distinct, except under the clavicle; in which last quarter, there was pectoriloquy, cavernous râle, and cavernous respiration in a very circumscribed point. At the end of September the cavernous râle had ceased, and the other signs, though still present, were less marked. About the middle of October there was neither pectoriloquy, cavernous respiration, nor even mucous râle, but merely dullness on percussion over the place where the indications of a cavity formerly existed. At this time the patient was in good health, and he continued well at the close of the ensuing winter.

*Case VI.* A medical student, 20 years of age, and of delicate constitution. In the middle of January, 1828, there was generally obscurity of sound, and in some points complete dullness on percussion; anteriorly, near the middle of the left side of the chest, at a point corresponding with the seat of the pain, there was very distinct pectoriloquy, cavernous respiration, and cavernous râle; and posteriorly there was general mucous râle. About the middle of April the mucous râle, cavernous râle, cavernous respiration, and pectoriloquy, together with the surrounding dullness of percussion, had completely disappeared, and natural respiratory râle could be heard in every part of both sides of the chest. He was now in a state of full convalescence, soon regained strength and flesh, and at the time of the publication of the author's paper, continued to enjoy good health. This patient was examined stethoscopically by several physicians of

note, both before and after the indications of a cavity ceased to present themselves.

*Case VII.* A bootmaker, 29 years of age, was examined by M. Cottureau in April, 1829. Percussion gave some obscurity of sound over the whole right side of the chest, complete dullness an inch and a half below the clavicle, and pretty natural sound in the left side, except at its inferior and superior regions; the stethoscope indicated a feeble natural râle at the lower part only of the right side,—in the axilla, under the clavicle, and in the supraspinous fossa of the scapula very distinct pectoriloquy, with mucous râle—and in the left side natural râle every where except at the summit of the lungs, where it was inaudible, and at the mamma where it was crepitating. At the end of May, the general symptoms were greatly mitigated, but the auscultatory signs were the same. In the middle of June the obscure sounds of the left and right side on percussion were no longer remarked, the completely dull point of the right side was somewhat sonorous, the pectoriloquy doubtful, and the mucous râle scarcely to be heard, in the beginning of July the pectoriloquy had ceased altogether; and his general health was completely restored. This patient, too, was examined by several eminent physicians, who were convinced of the existence and subsequent disappearance of a cavity. In November, 1830, he continued in a state of perfect health.

*Case VIII.* A tinsmith, 30 years of age, whose father died of phthisis, was examined for the first time by M. Cottureau in the middle of February, 1829. The right side of the chest sounded obscurely over its lower two-thirds, and completely dull over its upper third, where the stethoscope indicated cavernous râle, and pectoriloquy both before, behind, and in the axilla; there was also general mucous râle of that side; in the left side percussion gave some dullness of sound under the clavicle, but elsewhere a clear natural sound,—and at the apex of the corresponding lung there was tracheal respiration. At the end of June the respiratory râle was natural in the lower third of the right side, while the cavernous râle there, as well as the general mucous râle, was scarcely to be heard; but the dull sound on percussion and pectoriloquy continued on the right side. In the middle of August there was no pectoriloquy, but still dullness of sound; and from having been apparently in an advanced state of phthisis, he was able to resume his employment. had no cough, expectorated merely a little white mucus in the morning, sweated when he worked hard, and could not walk quick without having beating of the heart and dyspnoea. In August, 1830, he was in the same state.

*Case IX.* A female, 28 years of age, whose mother and sister had died of phthisis, was attacked with the usual symptoms of

that disease subsequently to a miscarriage. In the beginning of March, 1829, she had complete dullness of sound at the summit of both lungs, and in the middle third of the left side, with much general mucous r  le, and over a small point, two finger breadths below the right clavicle, distinct cavernous r  le and pectoriloquy. In the beginning of May, M. Cottereau confirmed the opinion of her ordinary medical attendant as to the presence of these symptoms. On the 1st of August, the only unnatural auscultatory sign which could be elicited was circumscribed dullness on percussion over that point only where the pectoriloquy was formerly heard. From that time till November, 1830, she has continued quite well, and free from any stethoscopic indication of a return of her complaint.

*Case X.* A merchant, 46 years of age, subject, as well as several other members of his family, to strumous enlargement of the glands, came under M. Cottereau's care with phthisical symptoms about the beginning of July, 1829. The chest was more contracted on the right than on the left side; the left sounded well, but the right was dull in its two upper thirds, the left presented mucous r  le above, and no unnatural stethoscopic indication elsewhere, but the whole right lung was almost impermeable to the air, while at the third intercostal space, two inches from the sternum, there was cavernous respiration and bronchophony approaching to pectoriloquy. On the 1st of October, these signs no longer existed any where, the sound on percussion, the sound of the voice, and the respiratory r  le being every where natural; and from that time he has continued in a state of perfect health.

*Case XI.* A lady 23 years of age, who had lost a sister from phthisis, consulted M. Cottereau, for similar complaints in the beginning of July, 1829. There was dullness on percussion under the right clavicle at the distance of three inches, tracheal respiration and distinct pectoriloquy at the same point, and in the corresponding region behind, and in the left side mucous r  le here and there without any other indication of disease. At the end of the following April, percussion and the stethoscope no longer indicated any trace of disease, and her health was perfect, and continued so up to the date of the publication of the case.

*Case XII.* This case, which is by much the most important of the whole, we shall relate more fully than the rest. A married female, 27 years of age, of delicate constitution, subject in her younger years to scrofula, and who had lost a sister from phthisis, was attacked in December, 1827, with dry cough, gradually, but very slowly increasing in frequency. In April, 1828, she had frequent h  moptysis. Nine months after she had a safe delivery

after which the pectoral symptoms increased in severity. In July, 1829, when M. Cottureau first saw her, she was greatly emaciated, the skin had a dry leaden aspect, the eyes were dull, the extremities frequently cold, the appetite indifferent, her cough not severe but frequent, especially in the morning, with copious easy expectoration of greenish yellow or grayish, opaque, consistent masees, amidst clear, viscous mucosity; there was also constant pain in the larynx, and between the shoulders, with shifting pains throughout the chest,—great oppression,—and almost complete loss of voice. The sound on percussion was clear in a circumscribed spot about an inch under the right clavicle; around this spot perfectly dull, and throughout the rest of the right side somewhat obscure; but on the left side it was natural, except that some obscurity of sound existed in the lower third. In the axilla, as well as the right subclavicular region, at the spot already mentioned, there was unequivocal cavernous respiration, cavernous r  le and pectoriloquy,—around this spot a complete absence of respiratory murmur, and the rest of the right lung tracheal respiration with slight crepitating r  le,—in the left side natural respiration in two upper thirds, mucous r  le in the lower third. The pulse was 80, but very irritable under the slightest exercise, the breathing always hurried, and a hectic paroxysm occurred every evening, with its usual accompaniments and termination. On the 29th July, the inhalation of chlorine was begun, but after a day or two an intermission was necessary, on account of an uneasy sense of heat and dryness in the back of the throat, which appears a very common effect of the chlorine when first used. In a few days, however, it was resumed, and gradually increased to three inhalations per day. During the three first weeks of August, two other intermissions were required on account of an increase of pain, and a sense of heat in the chest. About the middle of September the general symptoms were greatly mitigated. For the ensuing month the inhalation could not be persevered in, on account of the state of the chest; but it was resumed at the middle of October, and continued regularly afterwards. At the middle of November, the amendment was so great that the lady considered herself quite cured. Towards the close of December her state was as follows:—The appetite, strength, and flesh natural; the cough and expectoration gone; the breathing not affected by walking or climbing; the sound on percussion dull over a circumscribed spot, corresponding with the point where pectoriloquy was formerly heard, and the respiratory r  le inaudible in the same quarter; but every where else the lungs appeared perfectly in their natural condition, free of morbid r  le, as well as of pectoriloquy. The inhalation was persevered in for security's

sake, till the middle of January.—For three months afterwards this patient continued to enjoy uninterrupted health. Subsequently, however, she was exposed to frequent fatigue and night watching, in consequence of the illness of her infant; and at the end of August she was seized with symptoms of general fever, which proved fatal in four weeks, without having ever been accompanied with any signs of an affection of the lungs. In giving an account of the dissection, we may confine ourselves to the appearances of the respiratory organ. The epiglottis, larynx, and windpipe were natural. Two cervical glands on the right side were enlarged to the size of small nuts, and contained each a nucleus of friable, chalky-like matter. Both lungs were pale, gray, pliant, and crepitating. The left adhered here and there to the costal pleura by old adhesions. In the middle part of its upper lobe, there was a tubercle as big as a pea, similar to the nuclei of the diseased cervical glands, and also some minute tubercles in the upper portion of the same lobe. The right lung was free of adhesion. At the fore part of its apex there was over a space of 18 lines long, and 8 deep, a darker tint of the tissue, with very firm consistence, and an appearance of wrinkling; and when this mass was cut into, it was found composed of hard, compact, almost fibrous tissue, of a slate color, marbled with grayish white; it was not traversed by any bronchial tubes, all of which are obliterated as they approached it. On the edge of this apparent cicatrix there was a small steatomatous-like tubercle, scarcely a line in diameter; and in various parts of the upper lobe of the same lung about a dozen minute miliary tubercles; but the tissue of that lung, both around the tubercles and in its other lobes, was quite healthy.

*Case XIII.* A corset-maker, 19 years of age, liable to scrofula, and whose father died of phthisis, was subjected to M. Cottereau's treatment in the middle of December, 1829, whilst laboring under the usual general symptoms of consumption. Percussion produced in the left side immediately below the clavicle, a clear sound, around this point distinct dullness of sound as low as the inferior third,—and on the right side a dull sound in the upper fourth. The stethoscope indicated pectoriloquy in the upper third of the left side, both before, and behind, and in the axilla, impermeability of the middle third, weak respiratory and subcrepitating r  le in the lower third,—and in the right side impermeability of the upper third, natural or mucous r  le in the remaining regions. At the beginning of August the dullness on percussion, the pectoriloquy, and mucous and subcrepitating r  les had entirely ceased, and with them her pectoral complaints. In November, 1830, she continued to enjoy a state of confirmed good health.

The author concludes with a short and moderately expressed paragraph, the close of which we recommend to the notice of Sir C. Scudamore and his associates, whose experiments on the same subject have been noticed in our review department. "Whatever opinion practitioners may form of those cases, they ought, at all events to be induced by them to make personal trial of the inhalation of chlorine, before passing final sentence as to its efficacy or inutility; and this is my only object in writing the present essay. A second series of cases, which will be published presently, will farther serve to show, that where the success of the remedy has been less complete, or actually nothing, the patients at least experienced obvious relief, and apparently a prolongation of their existence beyond what could be rationally expected in ordinary circumstances, considering the extent of the organic disease."

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ART. II. *Translated from the Magazin der ausländischen Literatur des gesammten Heilkunde und Arbeiten des Aerzlichen Vereins zu Hamburg. A treatise on the diseases of the liver, by AUGUSTE BONNET, M. D. of Paris.*

*Traité des maladies du foie, par AUGUSTE BONNET, M. D. Paris, 1828. Treatise on the diseases of the liver, &c.*

AFTER the author has added other diseased conditions of the liver, to the history of acute and chronic inflammation of the liver in his prize essay, which was accepted by the Société Médicale d'emulation, he will give the work to the public. Among some prefatory reflections, he speaks of the difficulty of discovering inflammation of the liver in its commencement; and remarks that authors who have written on this disease, have only had in view confirmed hepatitis, while they have passed over in silence the forming and less confirmed, as well as cases of irritation of the liver, neither of which ever run into perfect inflammation. The author therefore endeavors to define, with distinct lines of demarcation, the diseases of the liver in their commencement; and divides his essay into semiology, etiology, prognosis, and treatment.

**SEMIOLGY.** The first grade of hepatic irritation, a condition occurring before hepatitis, the author divides again into an augmentation of the organic functions, and into inflammation, in which the morbid congestion is so inconsiderable, that the distinctive marks of hepatic inflammation are not observable. The



author maintains, that these conditions are present, so soon as an increase of the activity of the liver, discoverable in the secretion of bile, takes place (whenever these bilious symptoms occur, there must also be lesion of the liver.) It is only a violent inflammation that can check the secretion of bile.

The inflammatory condition is not yet commenced so long as the irritation is fresh, and the right hypochondrium neither swelled nor painful to the touch. Vomiting discloses such hepatic irritation: the bilious turgescence, the bilious condition, the bilious fever, perhaps also cholera and yellow fever, follow a similar exaltation of the liver. Dissection in such cases shows nothing, for the hepatic irritation, says M. B. does not afford so remarkable an afflux of humors, as thereby to give rise to true inflammation. If such an inflammation therefore has lasted only a few hours or a day, we can with safety believe, that the irritation has not yet passed into inflammation. When the hepatic irritation is light, the secretion of the bile is simply increased. If it is more violent, death may follow, before inflammation has formed, (as in many diseases in warm countries;) otherwise actual inflammation occurs, whose traces are shown by dissections. The author now goes into a description of acute inflammation of the liver, and quotes the symptoms given by most writers; and asserts that they are never all present, and, that when most of them are present, there is no acute hepatic inflammation, but a *gastro-hepato-peritonitis*. In order to prove his assertion, the author cites four cases, of which he has observed the first, third and fourth, to have arisen from external causes, while the second, which was without any known cause, he has borrowed from Portal's work, *des maladies du foie*. The three first cases terminated in death: the fourth in recovery. Dissection showed not only injury of the intestines, of the peritoneum and liver, but also of the brain, the lungs and the kidneys, which latter, the author considers as only consecutive. (The reviewer is of the opinion, that gastro-peritonitis is not always primary, if external injury of the liver, by which the peritoneum must inevitably partake of the injury, has not produced inflammation. If, in the first case, the peritoneum is not affected morbidly, and if in the second it is inflamed; in this condition, it may be drawn as easily as other structures into suffering through the inflamed liver. As to the inflammation of the bowels, it appears sometimes to take origin from the peritoneal sac, sometimes to arise first, if the secretions of the liver are altered.) In order to be able to learn the symptoms of hepatitis, the author regards as best, after one has removed the known symptoms of *gastro-enteritis*, (*les signes de la gastro-enterite si connus aujourd'hui*) to distinguish well the signs of peritonitis and hepatitis. The symp-

toms of gastro-enteritis are, according to the author, lassitude, vomiting, great thirst, redness of the tongue, a dry, burning skin, a strong and very often a hard pulse. The symptoms of peritonitis, are, a swelling of the right hypochondrium, a violent, sticking, darting pain, similar to that of the inflamed pleura, which in some cases extends from the right false ribs to the clavicle, and arm of the same side, a feeble (not abdominal) respiration, a dry cough and hiccup. The symptoms of inflammation of the liver itself, remain to be mentioned,—and these are, an obtuse deep pain, most frequently in the right *regio hypochondriaca* (but sometimes also in the *epigastrica*, and the left *regio hypochondriaca*,) with a sensation of anxiety. A sensation of fulness, and of suffocation; an inability of lying upon the left side; a bitter taste; a yellow color of the tongue, usually a yellowish tint of the eyes or of the skin; light colored stools, or bilious evacuations, more or less abundant; a yellowish, sparse and oily urine, with a reddish sediment. Yet the author says, that all these symptoms of acute hepatitis are never at one time present; he has knowledge of such a case only, which Andral furnishes in his *Clinique Medicale*. As to the distinctions of Pinel, Franck, and others, in regard to the inflammation of the convex and concave surface of the liver, M. B. agrees with these writers as to the symptoms; in the first cases inflammation of the peritoneum is present, while in the latter, there is inflammation of the intestines.

The author now passes on to chronic hepatitis. This, he says, is the more difficult to discover, since it seldom is a consequence of acute hepatitis; and that the existence of this disease must be learned more through the presence or absence of the better known symptoms of disease of the adjacent organs. In the commencement the patient is usually hypochondriacal; he has no fever, but complains of an itching over his whole body; there is lassitude, shifting pains, cold feet, &c. These symptoms, the author remarks further, may continue for months, even years; now and then remitting, sometimes attended with pain of a few moments in the right hypochondrium, may lead to the supposition of the disease of the liver.

At a later period, however, pains present themselves in the epigastric region, which increase between meals; there is thirst; aversion to strong food; the tongue is furred in the middle; sometimes vomitings of slimy matter; dry skin; constipation; light colic, accompanied with eructations of wind. To these symptoms, which only denote a chronic irritation of the mucous coat of the intestines, there is added a hardness of the liver, which augments in size, and has a feeling of roughness; the pains of the right hypochondrium increase, and extend themselves upon

the breast and shoulder: the difficult respiration becomes in a lying posture on the left side, augmented: the skin and the sclerotic coat of the eye take on a yellowish color, the evacuations are gray, the urine of a saffron color, thick and oily; emaciation commences, the legs swell first, and the patients die dropsical, if acute inflammation does not sooner destroy life. The author further asserts, that the course of the disease is not always so regular, and that dissections have shown abscesses in the liver, whose existence had not been suspected. All the symptoms may be absent; the pathognomonic are only the pain, and the increase of size of the liver. The pain is distinguished from that of the peritoneum, which covers the liver, in as much as it is a pricking and darting pain, and spreads itself upon the side and shoulder, and makes itself known without our feeling the liver: the increase of size can sometimes be judged of by the sight alone; but the touch exposes it more readily. M. B. here quotes the manner given by Andral, for examining the size of the liver, and reminds us, that it must be distinguished from the swelling of the stomach, and of the spleen. From the swelling of the stomach it may be distinguished, from its being less moveable, and can be pursued behind the ribs; of the swelling of spleen, it is to be remarked, that this holds a perpendicular course, whereas a swelling of the liver has a horizontal. The liver from its preternatural swelling, presses forward into the belly, and may be brought out of its situation; upon which M. B. reminds us of the difficulty of making a diagnosis in such cases. There is a possibility of confounding it with pleuritis, as very often that part of the pleura, which is united to the diaphragm, is concerned in the disease, yet, an accurate examination of the breast will soon confirm the diagnosis.

The irritation of the liver may cause, according to the opinion of the author, either hypertrophy, or a locking up of itself. In regard to hypertrophy, the author understands only an enlargement of its bulk, which produces disfiguration, if it be partial, but not when general. A locking up is the condition, when in addition to an increase of substance, there are also present a change of structure, and an obstruction in its functions.

Acute inflammations of the liver resolve themselves, or pass into suppuration, gangrene, or chronic inflammation.

Resolution is to be expected, if the treatment from the beginning is correct, and if there is no perfect hepatitis, but merely a *gastro-hepato-peritonitis*. The author does not believe, that resolution follows on the seventh or eighth day, but that it is often much later.

Neither does the author believe, that epistaxis, spontaneous menstruation, hemorrhoids, a copious flow of urine, or perspira-

tion terminates hepatic inflammation, if the convex side of the liver is affected: nor do bilious stools, perspiration, and occasional vomiting, when the convex side is concerned; these symptoms are, in his opinion, only the results of the cure.

Abscesses are very rare: and it is only on the convex surface that they can be discovered, and take origin from the suppurative condition. They are, he says, generally mortal; yet nature is capable of affording the pus a passage out, below, or above the false ribs, between the muscles, by the axilla, the pit of the stomach, the lungs and then through the bronchia and mouth, through the gall duct, the stomach and the large intestines. If the discharge takes place within the peritoneum, death follows. The author does not believe, that an abscess of the liver can remove to another place by metastasis. [In our experience, we have seen abscess of the liver in children, more uniformly curable than it is fatal in adults.]

As the older writers regarded every black color of organs as gangrene, and as the moderns have not proved satisfactorily the existence of this disease of the liver, the author believes that he can maintain that hepatitis never runs into gangrene.

Chronic hepatic inflammation may often arise as a sequela to the acute; if either the physician is called in too late, or is timid in the employment of proportional means.

Abscesses may also arise from chronic hepatic inflammation; if a scirrhus degeneration is present, the pus is white and thick. The longer the chronic hepatitis lasts, the greater generally will be the size and weight of the liver. This organ is then often of a fatty nature, (*graisseux*) of a reddish yellow in color, mellowish, retains the impression of a finger, and leaves an oily mark on paper. M. Louis has very often found this pathological condition in phthisical patients, particularly among men.

M. B. believes, that the adipocire degeneration of the liver, is merely a termination of this fatty condition.

Tubercles of the liver soon form rugged and projecting lumps, of a yellow or green color, and masses of granulations, which immediately unite with the former. Tubercles are not so frequent as was supposed in the last century. Tuberoles, according to the opinion of the author, particularly in old subjects are of a black color.

Scirrhus run into concretions of a reddish yellow color, according to Laennec, which show themselves in many organs, but particularly in the liver. The author asserts, that that degeneration is always connected with a general diminution of the liver, by which the upper surface becomes wrinkled. M. B. also believes that scirrhi distinguish themselves only by the color of the tubercles.

Moreover the liver may become scirrhus, and run into masses resembling the brain.

Irritation may also give rise to sac-like swellings, but these rarely form in the liver. Hydatids may likewise form in the liver, these are ascribed by the author to irritation.

The author closes this section with some remarks upon the normal color of the liver. This, according to his opinion, as well as the normal consistency of this organ, is hidden in darkness. Whether a diseased liver can again acquire its normal consistency and color, he does not venture to decide.

**ETIOLOGY.** The nature and constitution of the liver are such, that the diseases of this organ are more frequently consecutive than primitive. Inflammation of the liver arises less frequently from external injury or any other cause which operates immediately upon it, than from sympathy with other organs. The author remarks, that injury of the liver, from congestion, may be considered as primitive; if the blood through some obstruction of the circulation is driven upon this organ: and he relates here two cases, in which the disease commenced with gastro-enteritis, and subsequently ran into hepatic inflammation. On this occasion, the author remarks, that the writers assert, that hepatic inflammation is most frequent in hot climates: he on the contrary finds the cause of gastro-enteritis, arising from secondary hepatic inflammation. In the augmentation of the liver from many diseases such as syphilis, scrofula, intermittent fever, suppressed exanthemata, &c.; the author says we will find gastro-enteritis existing. He likewise, believes, that many mental causes, such as distress and anxiety of mind, fright, &c. give rise to hepatic derangement. These first operate on the brain, producing gastro-enteritis by sympathy, and then seize on the liver. Where jaundice arises suddenly, gastro-enteritis arises more suddenly. He does not doubt, that this can be produced by the report of numerous cases. He contends for his oft repeated hypothesis, arguing that all the facts tend to show that gastro-enteritis has its foundation in hepatic irritation.

M. B. is of the opinion, that inflammation of the brain is never a consequence of hepatitis, but that gastro-enteritis may cause the transition.

Since the author, at the end of this chapter, could not forbear from supporting his work in the best possible manner, he compares his theory with the Broussaian, in order to show that they are not only very different, but that his, by far, merits the preference; and with his usual prolixity he compares them with one another.

**PROGNOSIS.** Consecutive irritation is readily curable, as well as primary hepatic irritation, if it has not imparted itself to the

peritoneum, or the alimentary canal, acute gastro-hepato-peritonitis often terminates unfavorably, yet the author believes, that this is mainly to be ascribed to the irritational mode of treatment. Chronic inflammation, although less violent and painful, is yet more difficult of cure; the structure becomes disorganized and cannot be restored.

**TREATMENT.** The treatment in general is antiphlogistic. That free bloodletting in hepatic inflammation may be employed, the author announces as new. The use of leeches to the anus he particularly recommends, where the patients are troubled with hemorrhoids. Cupping and leeches in the region of the liver as a thing of course he advocates; cantharides he asserts, do injury in the commencement of the disease and are of no service at a later period.

In the beginning he gives internally diluted acids and glysters, afterwards castor oil. Should abscesses form, he does not open these by corrosive or caustic means, but with the knife. The diet should be light and vegetable, particularly in chronic inflammation.

*Passive congestion of the Liver.*—The author remarks in this section, that congestion of the liver may exist, without being preceded by any perceptible hepatic irritation. This is particularly the case, if the free circulation of blood in the great vessels of the heart is obstructed. So, also in scorbutic subjects. The liver swells up in such cases, but is quite smooth and even, and cannot easily be confounded with the swelling from chronic inflammation. The diseases which give rise to such congestions are incurable. Internal congestions of the vessels of the liver can likewise occur, and the blood then effuses itself into the stomach or duodenum, and is thrown off by vomiting or purging.

The author now directs his attention to hepatic asthenia. In his opinion, it arises solely from diminished secretion of bile, without there being any other symptoms of disease of the liver. Yet he acknowledges, that he has never met with any such cases. He thinks that calomel ought to be employed in such cases. Atrophy of the liver, may arise according to M. B. either from irritation, the cessation of its organic functions, or the want of nourishment. In the last cases, we can give to the peculiar condition, only the name of atrophy, as here the structure is not at all changed. This atrophy may be general or partial, and may arise from pressure by other organs, or from external pressure, as from tight lacing.

The author now treats of gall stones. After he has given their locality, their size, number, form and consistence, he describes the usual symptoms, by which the physician may detect their existence. When gall stones are discharged either by vo-

miting or purging, the author is of the opinion, that they have not yet produced any morbid symptoms. He also makes the same assertion, when the gall stones are discharged by an abscess in the hypochondrium. The discharge of gall stones in both cases has happened occasionally; at one time, where the stomach, bowels, and liver were affected.

When a large gall stone has made its way into the intestines, we have examples of its closing up the passage and causing death. The author reminds us that patients who discharge gall stones by vomiting, or purging, labor for a long time under attacks of colic, and pain in the region of the liver. The author, therefore, draws the conclusion, that the stones have formed during the existence of irritation. As to the treatment, he rejects the numerous means recommended, and believes, that no particular treatment is necessary, because the diagnosis is difficult, as we cannot impute the morbid condition to the existence of stones.

As to bilious colic (*colique hepaticque*) M. B. shows the condition of the bile, as primarily affected; but he says there exists no single example, by which one may prove the existence of this morbid condition; and many colics which are referred to the liver, arise in many affections, which implicate the secretion of bile. That this disease may be neuralgia of the hepatic plexus, as M. Andral means, the author will not admit. The formation of water in the belly in consequence of diseases of the liver, the author ascribes to the increased secerning function of the peritoneum; and he believes that it also may be caused by chronic inflammation of the liver.

The gall passage may take on inflammation, and suffer from other morbid conditions. Sometimes the affection may arise from the irritation of a gall stone. The calibre of the gall canal may be either partly, or generally obstructed or dilated. If the common gall passage is obstructed, the gall accumulates and forms a swelling which is very perceptible, and may be readily confounded with hepatic abscess. Here the author goes on to show the distinctions, furnished by J. L. Petit. The overloaded gall bladder may burst and afford a passage to the gall, either into the cavity of the peritoneum, or externally; or into other parts. Moreover, the author remarks, that the gall bladder may not only burst, but show after death red fibres, similar to those of muscles.

In the following section he describes the various symptoms of jaundice, and differs only from most others in believing, that the stools and urine, are seldom changed in their qualities or appearance. He furnishes here many different theories as to the causes of jaundice, and adopts the opinion of the ancients, who

believed that the yellow color of the skin is caused by the bile, which is mixed and circulates with the blood.

Jaundice may show itself frequently in acute and chronic hepatic inflammations, but in gastro-enteritis only, when it implicates the liver. The mechanical obstruction, which prevents the passage of the bile, causing jaundice, has its seat in the gall passage. But the obliteration of the gall bladder itself, and of its canal, does not produce this disease: and most frequently the obstruction is caused by pressure, which is produced by a swelling of the liver, or sac-like swellings, or by schirrous masses. If the liver or the common gall canal is obstructed, the bile accumulates, and becomes a source of irritation to the gall vessels. This irritation transplants itself by this course upon the liver, and then jaundice may be recognized.

Those cases of jaundice which arise suddenly in consequence of injuries or moral influences, and are called by many nervous, the author ascribes to irritation of the mucous coat of the alimentary canal.

The jaundice which arises in pregnant women, in the opinion of the author, is owing to the sympathy which exists between the womb and the digestive organs.

The author denies, at the close of this section, the inflammatory tendency of jaundice, which shows itself, as the action of the vessels of the liver is increased, and the bile becomes absorbed, is mixed with the blood, and carried into the circulation. With great naivete, the author acknowledges that it cannot be explained, why it happens, that every hepatic inflammation does not give rise to jaundice, but as in many other cases we must veil our ignorance under the name of idiosyncrasy. The terms symptomatic, spasmodic, &c. &c. added to jaundice, he throws aside altogether, because they can furnish no certain idea of the mechanism, by which the skin takes on a yellow color.

In general this disease requires no particular treatment, and he believes, that when it continues longer than the exciting cause, its disappearance may be accelerated by gentle purging, bitter drinks, &c.

In the last section of the work, the qualities of bile are described; the individual cases, in which it has been found changed, given, and the question thrown out, whether a primary affection of the bile may exist.



*ART. III. Die Brechruhr des jahres 1831, in Süd-Russland; taken from the Magazin der gesamenten heilkunde zu Hamburg.*

[THE subject of cholera having prevailed in the East with a most frightful mortality for some time past, and more recently in the south of Russia, we have thought proper briefly to notice the subject. The following account is taken from the Hamburg Medical Magazine. We present our readers with a mere abstract of the article from which it is taken. As may be expected in most parts of Europe, the paper before us ascribes the character of contagiousness to this disease—as we proceed, we shall endeavor to shew on how slight a foundation the writer has based his opinion of contagion.]

Before we go on with our melancholy narration, concerning the cholera, from its first appearance in Southern Russia, up to the present day, we will quote an article on the subject, which first appeared in the Northern Bee, (a Russian publication) on the 14th September, 1830, at Moscow, furnished by the Russian minister of the interior, Lieutenant General Sakrewsky to his majesty, the Emperor.

"It has pleased his majesty the Emperor, to command me, to devise measures for the prevention of an epidemic disease which has appeared in a few districts. I have therefore, adopted every means for the furtherance of the constant and diligent endeavors of his majesty, to expel the causes in those places where the pest already exists in order to drive it from the borders of Russia, and to shelter the untouched places from its devastating effects; calling to my aid the nobility, the clergy, the merchants, and other inhabitants of the districts, and exciting their charitable feelings to act in common with myself, to the quickening of so noble a zeal.

"In making this call, I am convinced that I will find all men filled with a laudable zeal, for performing this holy duty to the monarchy and the magistracy, and that they will become animated by the high consciousness of virtue, in acting together for the assistance of their neighbors.

"Although the cholera is a new and a fearful phenomenon in Europe, and the physicians in general were not acquainted, until now, with the undefined peculiarities of the disease; yet, from the observations of Indian physicians, and experience acquired in former years, in Orenburg, we may gain some knowledge of the rapid course of the disease, the causes which promote its extension, and the surest means for its prevention, as well as its cure.

"The tenor of this experience and observation, furnishes the following as the most salutary preventive course against this calamity.

1st. *The course of the cholera.*—From the rapid spreading of the disease, we must conclude, that the disease is contagious. Its known propagation along the course of rivers in the direction of the great roads, and its appearance in certain places, whilst it spares others which lie between them, induce us to believe, that it is carried and propagated by men; and every one charged with it, even if he has no evident marks of the disease, (even in his passage through cities and villages, where it becomes fixed) spreads abroad through the air the seeds of the disease. Consequently all who come from a place, where the cholera rages, should be admitted into a healthy place only with the most extreme caution.

[To our apprehension, it is only necessary for us to compare the very slender grounds on which the author of the Russian report has placed his opinion of contagion, with the more general and ample account which he gives of existing or collateral causes, to see, that the belief of contagion rests on no better foundation than that of prejudice. We have only to look to the belief, which has so long prevailed in Europe, of the contagiousness of plagues, which have at times overcome that quarter of the world; and, especially the very prevalent opinion that yellow fever is contagious, to see that few public functionaries will dare to encounter the prejudice of the public, by advocating an unpopular opinion. Besides, it unfortunately so happens that those who have the control of such matters are directly interested in supporting the notion of contagion. Every medical officer comes into power under an education which has prejudiced his mind in favor of contagion; his interest seems to require its continuance, and hence it is, that they so uniformly find grounds for so erroneous an opinion: nor is it necessary to impute any thing like dishonesty—the human mind is almost entirely imitative in its operations, and hence we have fashion, and that of the most obstinate kind, in medical doctrines: a mind blinded by prejudice sees, and disposes of facts and circumstances, in a way to meet settled opinions, too often unconscious of the fallacy.]

We are told that this disease spreads rapidly, therefore, it must be contagious! It is propagated along rivers, and in the direction of great roads—therefore, it must be contagious! It appears in certain places, whilst it spares places between them—and therefore, it must be contagious!

In answer to this we would say, that the small pox, the most clearly marked contagious disease to which mankind are subject;

and, indeed, all diseases which are acknowledged to be contagious in this country, spread rather slowly; while epidemics, such as influenza, which is obviously an atmospherical disease, spreads with a rapidity quite unknown in any contagious disease. Indeed, we would reverse the position, and say, that since it spreads with great rapidity, it is dependent upon some general cause—that is a contaminated atmosphere.

*Its passing along rivers* is what may be expected of most epidemics especially involving the alimentary tube, as are all diseases arising from malaria. Rivers in general are skirted by the better lands of a country, and a more dense population. To these facts we must add, that, all circumstances which have been put down, and presently to be seen in the Russian account before us, which are calculated to “*promote the spreading of the cholera,*” are to be seen in greatest abundance along rivers, and to this, and this circumstance alone, can we attribute the fact of extension of cholera along rivers.

*The disease passes along the great roads.*—Generally speaking, the great roads are well settled; lands of equal fertility being always most sought after in public places; there being a more dense population, there is more likelihood of extension. This is the most plausible circumstance in favor of contagion that has been mentioned; but in order that we may admit this as proof of contagion, it should be shown that persons have sickened on the way, have been detained, and that those around them have also sickened, while nothing similar exists any where in the neighborhood. Nor is a single case, or even several, satisfactory, because the poison may as well affect the inhabitants, along roads as any where else—decision can be only safely made after time and full opportunity.

*The disease appears in certain places, while some other places between are spared.*—We should be disposed to reverse this position. Surely, if a disease be contagious, those nearest the contagion, in the main, are the most liable. We admit that contagion may readily enough be carried past one town, and take effect in another. But surely we may safely argue, that just as sure as a disease is contagious, so will those nearest the source of contagion, in the long run, be the most liable.

The Russian reporter admits, that many circumstances have a bearing on the extension of the disease, as may presently be seen, on reading a little further. If such be the fact, what is so likely as, that, circumstances which have so obvious a bearing on the spreading or existence of the disease, are, in reality, the cause of it; and if so as places abound more or less in those supposed collateral circumstances, so may some be affected before others that are differently circumstanced. And, therefore, it is not to be wondered at, that districts here and there are first affected.

But as we have already intimated, we have an instance of an epidemic state of the atmosphere, as in the influenza—this spreads in every direction, and although its march may generally be traced; still places will never be found suffering precisely in their relation to the quarter of the compass from which the disease first appears in a neighborhood. Mountains, hills, woods, waters, &c. all may influence the winds, so as to carry the poison irregularly, as regard time, from town to town. In a word, the very fact that the cholera is under the influence of so many things unconnected with the contagion, tends to show that the disease is not contagious. Small pox is but little influenced by any thing but contagion, and susceptibility.

Formerly the advocates for the contagious nature of yellow fever viewed it as unconditionally contagious, now a days, when it is found that certain circumstances are indispensable to the spreading of the disease, they say the atmosphere must be impure to give it play—the advocates of the contagious nature of cholera, a disease which has prevailed for time immemorial, in all countries, contend for this lower state of contagiousness—this is indeed the only ground on which either can be sustained. Thus it turns out that these diseases, yellow fever, and cholera, are *half contagious*.

Report says that the Russians are fighting their battles with the Poles, by carrying the contagion into their camps—this comes very well from an oppressed enemy; and if such an opinion can give any support to their cause, we wish it all success; but we have yet to learn, how Russia, with the larger army, can propagate this disease without being injured in the relative proportion to her population.

To us nothing could appear a more singular evidence of incautious and unphilosophical thinking, than the admission of the belief that a disease, which infects whole countries, can be kept from spreading by quarantine or any kind of surveillance.]

2d. *Causes which promote the spreading of the Cholera.*—Repeated observation has shown, that the following circumstances contribute to the spreading of the disease.

- (a) Damp and cold night air after hot days.
- (b) Indigestible food and drinks, which are subject to fermentation, as lent-provisions, mead, beer, milk, salt, but not fresh fish, unripe fruit, &c.
- (c) Excessive eating.
- (d) Low and marshy places.
- (e) Small and filthy habitations.
- (f) Uncleanliness of the body.
- (g) Drunkenness, and particularly intemperate living.

(h) Debility of the body. (i) Depression of spirits and trouble of the mind, anger and fear.

3d. *Means of prevention against cholera.*—(a) Rigid surveillance of the place where the cholera has broken out, and unwearied inspection, that no one goes abroad without the required cleansing, which must last at least fourteen days. By the course of the posts, couriers and their retinues, &c. all must be washed with unslaked chlorine, and they must be only admitted to the boundary line, then given to healthy people, who must also be washed with chlorine and then go off to places not yet infected.

The benefit of a similar surveillance has been experienced in the village of Kramoli in the Orenburg district.

(b) No one should sleep in the open air, or go out immediately after sleeping, if he is not perfectly and warmly clothed, or has not shoes and stockings on—and indeed neither immediately after sleep or just coming out of bed.

(c) No one should partake of raw fruits; nor beer, mead, sour milk, mushrooms, salt fish, (which provoke thirst). Every person must guard against drunkenness, although a glass of good brandy for the laboring people, and for others a glass of anise, mint or juniper spirit, will not only not do harm, but promote perspiration, and digestion.

(d) The stomach must not be overloaded with food, particularly in the evening.

(e) Guarding against every sudden checking of transpiration or perspiration. If it can be procured it will be found serviceable to wear flannel next to the skin, or at least a woollen band.

(f) The common people must not go immediately from the stove room into the air, nor bathe in cold water; and in going out from the bath, they must clothe themselves sufficiently warm; but must not leave their breast or feet naked, as is usually the case, and particularly not to drink cold water immediately after the bath.

(g) The use of teas of chamomile, mint, sage, balm and other aromatic herbs.

(h) To rub the whole body daily, morning and evening, with warm cloths, and if possible with warm vinegar.

(i) The dwellings to be kept dry, moderately warm, and as clean as possible.

(k) Quietude of mind, and a firm belief and hope in the Providence of God.

All these means are preventive; but if, by not observing these, or by negligence, or through any other cause, the pest breaks out, the following regulations are to be adopted.

1. On the first symptoms of cholera, the person must hasten to the physician, and where there is none, to the army surgeon or the barber, so that he may be bled: he must then take warm aromatic drinks, and have applied to his body (chiefly under the breast bone,) camphor or ammonia, spirits of turpentine, brandy mixed with mustard, or Spanish pepper; or have it rubbed with birch tea. He must lay upon his body (stomach) hot ashes, or oats or bran, &c., and in the want of these things, linen cloths dipped in water as hot as the patient can bear. He must then take mint drops with poppy juice, according to the directions appended to it.

2. The patients must be placed in dry, and where it is possible, houses located in high situations.

3. All large collections of men, in public places, inns, &c., and even in the streets, are expressly forbidden.

4. Every house must be daily fumigated with chlorine, likewise with vinegar, and in good weather have the windows opened. This is particularly necessary in houses, where there have been patients affected with cholera.

5. No one shall go out early, fasting. It is beneficial to use warm drinks early in the morning, as has already been stated, (see preceding page.)

6. The towns must be divided into four parts, these again into districts: and the villages into subdivisions, where persons must be chosen to superintend, whose duties will be to collect daily, copious and accurate information concerning the health of the inhabitants, to pay particular attention to the quality of the provisions, and on the first symptoms of the disease to call in the physician.

7. Care must be taken that the dead are buried with proper precaution; in deep graves; and where it is requisite, these graves must be filled up with unslaked lime.

8. It must be firmly adhered to, that at the funerals, and other ceremonies, no unnecessary spectators be present; all who have nothing to do there, must keep away.

9. During the progress of the disease, the patient must refrain as much as possible from appeasing his thirst.

10. After the termination of the disease, a very great appetite is not very unfrequently observed. But this can be appeased only with the greatest caution, since the overloading of the stomach may very readily bring on a relapse.

*The means of prevention are now to be considered, which are here given against this epidemic—means, whose observance is so easy, and whose use has already been so often proved, that I can with confidence call upon the officers, land proprietors, clergy*

and merchants, to receive them unanimously, and to attend to them with the most punctual performance—for their individual and general good.

Since all this will be distinctly and accurately observed, I entreat also the civil governors, and the agents of the nobility to form a committee, and to constitute it of the following manner.

(a) In the capital towns; the civil governor, the agent of the chief nobleman, the vice governor, the oldest military commander; sometimes also, a deputation of the clergy, the inspector of the medical department, the postmaster, and the mayor.

(b) In the towns; the secretary of the nobleman, the head of the police, postmaster, &c. &c.

The committees will, according to the above mentioned directions, attend to their execution with the greatest and most rigid strictness. For more accurate inspection, moreover, they will employ the first persons of the city and country police, who reside there, dismissed noblemen or trusty superior officers, who occupy different stations, as well as other persons not in service; besides, lists will be furnished in which are given their regions, or districts or subdivisions in the villages. These lists, I will myself prepare in proper time.

Moreover, I will feel thankful if any one animated with a feeling of duty and charity, will employ every newly discovered medical remedy, which may be of service against this epidemic, and furnish me with a notice of it. Lastly, I request every one to write to me at Saratow; but in the mean time, to pay the most rigid attention to the performance of the above mentioned regulations.

But in case a city or village has been reached by the pest, and disease and death prevail, suitable quarters must be allotted for the sick, as much as possible in high situations and dry houses. For serving and attending on the sick, the soldiers of the lowest grades will be employed, and if none are in the place, citizens, householders, peasants, &c. &c. who will receive a pay of fifty *Hopeken* for twenty four hours, which I myself will furnish, after proof of their service has been received.

As to the necessary means for the cure of the disease, no one need be apprehensive of the want of these, for, upon the first information from the governor, I will despatch to every place, where it is required, without delay, physicians, apothecaries and surgeons, supplied with medicines, and stores which will be distributed gratuitously. As great and indescribable as is the pain of his majesty the Emperor, in regard to this calamity appearing in many parts of his kingdom, so great is also his unlimited care, in affording speedy assistance.

Selected most graciously for the execution of this charitable purpose of his majesty, I will strive with all my power, to render myself worthy of this good fortune, of the high trust of the monarch, in the performance of the work committed to me; and I pledge myself to the high duty, of making the Emperor acquainted with the zeal and devotion of all those who will work in common with me in this path of labor.

Land proprietors, clergymen, and merchants, I call upon you in particular. By your means we will render effective the firm and rigid performance of the most holy will of our monarch."

[We have presented our readers with the whole of the Russian report, because we believe it to be a good specimen of the spirit by which matters of this kind are managed by those in power. Here are fine compliments to the monarch, and a pretty post of high honor and profit for the Lieutenant General. His majesty may thus cover thousands of sins peculiar to arbitrary government; and, the people blinded by a show of protection, are ready to adorn the emperor, who, in his fatherly regard for his subjects, beats up the influential throughout his dominions to echo the sound of the cordons anataire, that contagion is stalking throughout all the Russias. And this seems to be the state of things in all countries where royal societies, and individuals are made the instrument of royal power, and find it their interest to keep up the delusion—for what we know, the governor may not be more sensible of the error than the governed; but here, as in all other matters, the many are the sufferers, and the few are benefitted, by all royal edicts, and arbitrary measures, however absurd. It is, in countries where "reason is left free to combat error," that we may expect the truth to remain untrammelled and untarnished, respecting any thing which may safely and conveniently be made a source of power.]

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**ART. IV. *Medico-Chirurgical transactions, published by the Medical and Chirurgical Society of London, 1830.***

THE sixteenth volume of these transactions has been favorably reviewed, in the North American Medical and Surgical Journal—from that work we make a few brief extracts. J. H. James, Esq. gives the detail of a case of aneurism of the external iliac artery. The symptoms were for some time so obscure as



to conceal the nature of the disease, the patient complaining much of the hip-joint. This was his situation when admitted into the Exeter hospital, four months after the existence of disease. One month afterwards, a well defined tumor was seen to increase rapidly, but there was no pulsation—the surgeon recognized it to be aneurism, and performed “Brasdor’s operation, revived by Mr. Wardrop.” The crural artery was tied half an inch below Poupart’s ligament. It was thought at the end of four hours, that the tumor was less—sometime afterwards it had diminished about three-fourths of an inch. The operation was not followed by numbness, or unpleasant feeling; temperature of the limb said to be good—somewhat more diminished some days afterwards. The tumor now began to increase, twenty-two days after the operation the limb was shiny, painful, and the tumor enlarging: the tumor threatened a speedy rupture. The gentlemen in attendance thought proper to take up the aorta, as the only possible chance of saving life. The patient died after agonizing sufferings in the lower extremities, of but four hours duration. We would not under all circumstances condemn the operation of tying the aorta, but we have rather determined to give it our disapprobation, since we greatly doubt, whether it will ever save life in the human subject; particularly after patients, as is always the case, are broken down by some terrible disease, or by one or more operations, upon arteries lower down. I would, however, make some objections to the manner in which this operation was performed, not with a view of finding fault, by any means, but with a hope of improving this operation, should it ever be performed again.

It is said that the incision was made in the linea alba, *about three inches in length, the navel at its upper third*. There was copious bleeding from the external wound which interrupted the operation. Abdominal walls opened, the bowels protruded to great extent—“nearly all the colon, and a great part of the small intestines,” were pushed out. There was much difficulty in every step of the operation; the intestines being inflated, could with difficulty be restored, after a very painful and somewhat protracted operation. We have been led to believe, that there was an error here of no inconsiderable magnitude; that is, making the external incision quite too small, so as not to do away the necessity of enlarging the wound, which we are told was done. If we make an incision of about six inches in length, we shall have room enough, and this will enable us to employ assistants, who can keep back the protruding parts; and, the operation should be so conducted as not to suffer the viscera to protrude at all which we know can be done. The case of operation upon the

common iliac, presently to be detailed, we think will be a better operation.

[Whatever may be said in favor of the operation of Anel, or Brador, we would decidedly object to it here, we mean in the groin. There have been so many successful cases of tying the external iliac, (and also some of the internal, and of the common iliac,) that there can be no apology for a new operation. And whatever may be the truth as regards the operation in general, there is reason to believe, that in the case before us, the old or common method, would have afforded the best chance of success; since by applying the ligature above the tumor, we should have discovered the bifurcation of the external iliac artery, which was found to exist upon the dissection of the body; and, of course, we should have made the case a common one, by tying the diseased artery instead of an anomalous vessel, not directly concerned in the disease.

There is much reason for believing that the tumor never did diminish from the operation, since "three-fourths" of an inch might have been the effect of a diminished circulation; and, the diseased artery not being included in the ligature, what other opinion can we draw from the facts presented?

It should not be forgotten here, that the common iliac was still entire, and it is known that when an aneurism forms at the groin, and gets within Poupart's ligament, while the sac, which contains the blood, is formed out of the surrounding cellular membrane, the peritoneal sac containing the bowels is carried up, so that, had the operation been performed at the groin, it is highly probable, that, the external iliac could have been tied at the time; at all events, some time before *that* period; and we would prefer at all times trying to turn up the peritoneum, with a view of tying the common iliac, rather than run the risk of tying the aorta, since the common iliac has been successfully tied. What was the state of the popliteal artery? Would it not have given indications of the disease before it was discovered, and while it was within reach of surgery? We can scarcely allow ourselves to believe that sufficient care had been taken to examine the tumor. How an aneurism could exist till such ravages were made, without being discovered, when this patient came in, we are at a loss to understand—there was absorption of a considerable portion of the ossa ilii, and pubis.

[The next case noticed in the work before us is, that of a tumor of the face of a medullary appearance.—The operation was attended with unusual hemorrhage. The operator did not stop to tie the vessel, although the patient fainted. Formerly, we generally proceeded in that way with our operations, taking care to have

the bleeding arrested as much as possible, by the fingers of assistants, but since our return from Germany, where we saw the happy effects of the *tortion*, proposed by M. Amussat, we have been much pleased at the facility with which we can take up even small arteries, on a small delicate pointed tenaculum, with a very small curve. To answer well, it must have a very fine point, then running this through the artery, or even very close to it, and twisting the instrument round several times, the bleeding immediately ceases. Mr. Barlow, the operator in this case, is entitled to much praise, for having conducted his incisions, in the removal of this tumor from the cheek, in such a way as to save the living membrane—this would greatly facilitate the healing, and lessen the deformity to a very important extent. We may occasionally avail ourselves of this precaution in removing cancerous affections of the upper lip, which we have twice done.

[*The next case noticed is one of the highest interest—it is also reported by Mr. Barlow. The North American, having given the case in Mr. B's. own language, we shall quote it.*—The case was a hard indolent tumor, which occupied all one side of the neck, and had become insupportable by its weight. The patient, (a young woman,) was anxious for an operation.] "I began the incisions, (says Mr. B.) with a scalpel a little below the ear, carrying them downwards over the tumor to the extent of not less than ten inches, and meeting a line below the angle of the jaw, leaving a portion of integuments between each incision so as to form an ellipse; when on proceeding to dissect the skin aside to get at the basis of the tumor, a sudden and unexpected hissing gurgling noise rushed obviously from a large empty divided vein, the patient expired instantly, without either sigh, or groan, or struggle, and every effort to restore animation was useless. The instant the atmospheric air gained access, and filled the vacuum, the hissing noise ceased, the patient expired, and the mouth of the vessel collapsed." [We are told that Mr. Barlow, recommends the employment of pressure upon the superficial veins, in operations upon the neck, or a ligature to the veins. We think with the reviewer, that pressure should be preferred, and never omitted?]

[The surgeon should never lose sight of the cases reported by M. Dupuytren, and doctor Mott. The *North American* having given a brief outline of those cases, from the reports of them by their authors, we shall copy those extracts.] "On the 19th November, 1822, a fine young woman at Poirier came to the hotel Dieu, for a tumor of some size, situated on the lateral and posterior sides of the neck. From its hardness, renitency, and insensibility, M. Dupuytren ascertained that it was of a calculo-fibrous nature, and proposed its removal, to which the young woman consented. The operation was performed on the 22d of

November; with all the skill and dexterity of that distinguished surgeon. No arteries were cut that required ligature, and consequently there was very little hemorrhage. Neither were there any muscles or large nerves divided. Just, however, as he was proceeding to separate the last threads of the attainment, and turn the tumor out, he was surprised to hear a somewhat prolonged hissing noise, similar to that produced by the re-entrance of air into a vessel from which it had been exhausted. The operator stood for a minute astonished, and observed, that were it not for the distance of the knife from the air passage, he would have thought that he had made an opening into it. He had scarcely said the word, when the young woman cried out she was dying, and instantly dropped down on the floor a lifeless corpse, to which all their efforts could not restore the slightest symptoms of animation. This happened in the presence of nearly 400 persons, and the body was examined the next day in the presence of fully as many, with the most rigorous minuteness. Every part of the body was carefully dissected, but there was not a particle of morbid structure any where to be found. An examination of the heart disclosed the cause of this melancholy catastrophe. The right auricle was distended like a bladder filled with air, which rushed out when cut open, without any mixture of blood. Fluid blood was found in the other cavities, as also in the different vessels. There was no other unnatural appearance in any part of the body." [The reviewer remarks that the inference drawn from this occurrence was, that the air had rushed in through one of the veins of the neck, (the divided origin of which probably remained patulous from the diseased state of the parts,) and thus caused instant death.] "It would seem to prove, that the heart acts as a sucking as well as a forcing pump, otherwise it cannot be explained how air should pass from a cut vein in the neck, to the right chamber of the heart."

[The case of doctor Mott, though similar in kind, had a more favorable termination.—The doctor has reported the case in these words.]—"In an attempt which I made to remove the parotid gland, in an enlarged and scirrhus state, the facial vein where it passes over the base of the lower jaw, was opened in dissecting the integuments from the tumor in the early stage of the operation, before a single artery was tied. At the instant that this vessel was opened, the attention of all present was arrested by the gurgling noise of air passing into a small opening. The breathing of the patient immediately became difficult and laborious, the heart beat violently and irregularly, his features were distorted, and convulsions of the whole body soon followed to so great an extent as to render it impossible to keep him on the table. He lay upon the floor in this condition for near half an

hour, as all supposed, in articulo mortis. As the convulsions gradually left him, his mouth was permanently distorted, and complete hemiplegia was found to have ensued; an hour or more elapsed before he could articulate, and it was nearly a whole day before he recovered the use of his arm and leg. From a belief that these effects arose from the admission of air into the blood vessels, which was not doubted by any person present, I instantly called to mind a set of experiments which I made some twenty years since upon dogs, by blowing air into the circulation, by inserting a blowpipe into a large superficial vein upon the thigh, and was forcibly struck with the similarity of result."

[*Case of ununited fracture of the thigh bone, successfully managed by doctor Somma, principal surgeon and professor, at Antwerp.*—This case of fracture had remained five months ununited and professor S. willing to try a new operation, used a wire instead of the seton recommended by doctor Physick.—This is truly an age of invention. "The left femur was broken obliquely about the middle, and the fractured extremities rode over each other, the lower inwards, and the upper end outwards. The patient being placed on his back and supported, I passed a long trocar and canula, at first downwards on the inner side of the upper fragment, and made it pierce the skin behind and a little to the outside, the trocar was then withdrawn, and a silver wire passed through the canula and out at the posterior opening. The canula was then withdrawn, and being replaced on the trocar, they were introduced again, above and on the outside of the lower fragment, and made to pass out at the same opening behind. The trocar having been removed, the other end of the wire was passed through the canula, so that both ends were in contact behind, leaving a loop in front. I then made an incision in front, from one orifice to the other made by the trocar, and drawing the extremities of the wire through the wound, brought the loop between the fractured ends of the bone, and approximated the edges of the skin with a sticking plaster." The limb was kept in a box well padded—the wire gradually tightened by drawing the ends behind, and thus force the loop further into the thigh. In six weeks the limb had become firm; the operation was performed on the 12th of August, 1828; on the second of October the wire was withdrawn, but the supporting apparatus not till the middle of November.]

[We are at a loss to know why a smooth piece of silver wire should produce more irritation and inflammation than a larger seton of flaxen or silken thread, but admitting that such is the fact, what reason is there for supposing that the failures that have now and then attended the method of doctor Physick, were owing to a want of sufficient inflammation? For ourselves, we are de-

cidedly of the opinion that, in most cases, if not all, the want of success was ascribable to other causes, and perhaps in all cases, to a want of proper lateral support and suitable extension of the limb. We would decidedly object to this method as a substitute for that of doctor Physick, since it is vastly more painful, is calculated to do much injury to the muscles, by exciting a great deal of inflammation, and consequent attachment; and hence, we think, the cause of the great impairment of the use of the limb, in the case of professor Sommè.

[In our last number we noticed a case of non-union, of seven weeks, which was speedily cured by an extending apparatus—we also noticed a case which we saw in the Hamburg hospital, in which Haggedorns apparatus was in use—we have not heard the result. But from the cases reported by B. Boyer, in favor of the long continuance of lateral support, we are strongly inclined to the opinion that in cases of non-union in oblique fracture, nothing will be necessary but to place the fragments in apposition, and keep up a tolerable degree of extension, to secure a re-union, in a few weeks or months. Till that plan has been properly tested, we would pointedly object to a cruel and painful operation, which, after all, leaves the patient a cripple for life.

[We think the case of Mr. Brown reported in our last number very much in favor of our opinion, that instead of exciting high and painful inflammation for weeks, we will secure an equal chance of re-union, and with a perfect limb, by extending the limb to its proper length, and keeping it there till union has taken place. Professor Sommè, tells us that "the fractured extremities rode over each other, the lower inwards, and the upper outwards." Now had he applied pulleys so as to extend the limb, and kept on an extending apparatus, with suitable lateral support, we have no doubt a much more favorable result would have been obtained—the patient would have had a useful and perfect limb, whereas, after much suffering the two ends of the fracture were "enveloped in a solid mass" of bony structure, occasioned by an unnecessary amount of inflammation. We are, however, speaking rather upon general principles; and, in this view of the subject, we say, that we have cured two cases of non-union by extension; and we believe it will generally succeed. How the seton is to succeed in giving proper length to a limb obliquely fractured, where no extension is employed, we cannot imagine. We believe that in ninety-nine cases of the hundred, non-union is owing to bad apparatus, or want of attention—more attention, or greater skill, in the adjustment, and regulation of the apparatus, will perhaps, always succeed even at the end of several months: where it does not, a simple seton will answer as well as many more painful and complex operations.]

**ART. V. *The pathology of Hooping Cough.*** By JAMES ALDERSON, M. D. *We shall copy this article entire as we find it in the North American Medical and Surgical Journal. We shall leave the remarks of the reviewer unmarked, those of the author in quotation marks, our own in brackets.*

THE object of the writer is to elucidate by post mortem examinations, "the nature and seat of hooping cough." That we may do him full justice, and at the same time exhibit the mode of reasoning adopted by too many of the pathologists of the day, in elucidating the nature of disease, we shall copy the result of his examinations in each case he presents.

The first dissection is, that of an infant two years of age, which died of tonic and clonic convulsions from pertussis. "There were no adhesions of the pleura, nor any fluid in the cavity of the chest; the lungs did not collapse, they contained much air, which was with difficulty pressed out: in different parts of the lungs, but chiefly in the lower portions of all the lobes, a change of structure had taken place, which has been termed lobular hepatization; this was more evident in the middle lobe of the right lung, which was quite contracted to the size of the pancreas, and which it very much resembled in the sensation which it conveyed to the touch; the septa dividing the lobules were distinctly seen, and appeared perfectly healthy, the lobules themselves quite dense, and somewhat resembling the muscular structure of the heart;(!)—several of the smaller tubes were much dilated, and lined with thick mucus. There was no appearance of inflammation in the trachea, or in the larger bronchial tubes." No examination of the brain appears to have been made.

*In the second case, a child of 7½ months old, died with symptoms of dyspnoea, flushed face, purplish lips, &c.* Dissection forty hours after death. In the head the quantity of serum in the ventricles, and under the arachnoid coat was larger than natural. The substance of the brain, of its natural consistence; the only morbid appearance was an irregular venous marbling of the medullary matter. In the chest, there was no trace of pleuritic inflammation. About one-fourth of both lungs, towards their posterior and inferior parts, was the subject of a morbid change; the structure was rendered very firm and dense; its limits were perfectly defined, the septa between the lobes constituting the boundaries. The portions in which this change had taken place were of a dull red color, perfectly void of air, sinking instantly when put in water, and undergoing no change when thin slices were subjected to ablution in it. The indivi-

dual lobules were firmer than they are often found in hepatized lungs; and the cellular membrane, between them, retaining its natural structure, produced a combination of looseness and density, such is usually observed in the pancreas. The remaining portions of the lungs were of a light color, of an uniform texture, spongy and crepitant, but very little, if any of the air pervading the lungs could be expelled by the bronchial tubes. Most of the tubes were filled with a light yellow secretion, which, in the greater number had assumed a concrete form, having very much the character of fibrin; in others, it was in the form of a thick puriform mucus; where it occurred in a concrete form, it adhered, though slightly, to the lining membrane of the tubes. This membrane was generally pale beneath the false membrane, but in some places it was a little reddened; most of the divisions of the tubes were somewhat dilated; the concrete secretion which filled them, readily explained the difficulty of expressing air from the lungs. The heart was healthy; there was a white coagulum in the right ventricle. The abdominal viscera were generally healthy.

*Louisa Cash, aged nine months, died with convulsions from hooping cough, March 4th 1829.*—Dissection revealed “no signs of pleuritic inflammation, no effusion. Both lungs had undergone the change so minutely described in the last case; the middle lobe of the right side, more particularly the seat of this morbid condition, much contracted, and quite impervious throughout to air. The lower portions of the other lobes on both sides were similarly affected; the remaining or upper portions of the lungs were crepitant, but did not collapse on opening the chest. The bronchial tubes, when cut open, appeared somewhat dilated.”

*Ann Jones, 3½ years old, died also from the effects of hooping cough; such as imperfect respiration, convulsions, &c.*—Dissection, “no adhesions in the chest, nor any effusions, the inferior portions of all the lobes in the peculiar state before described; the middle lobe of the right lung, as observed in the former cases, quite contracted and changed. There was nothing in this case like membrane, but dense muco-purulent secretion filled the more minute bronchial tubes; the heart was quite healthy, except at the apex there appeared a small flattened syst of five or six lines in diameter, which contained a limpid fluid.” No examination of the contents of the cranium.

The author observes that he has dissected other cases, in which the same changes have been perceived. He wishes to fix attention on the absence of pleuritic inflammation and effusion, on the healthy state of the cellular portion of the lungs, on the firmness and density of the affected lobules, exactly defined by the septa, on the spongy and crepitant (natural) condition of the remaining



portion of the lungs, from which, however, very little air could be expelled by the bronchial tubes. Hence he infers, "that in this rapidly fatal stage of the complaint, an adhesive form of inflammation is set up in the different air cells, at the same time mucus is secreted in less quantity than natural, a fibrinous exudation takes place, and adhesion of the parietes of the cells is the consequence; whilst the cellular membrane, separating the individual lobules, retains its natural structure: a form of disease which exactly resembles croup in a different part of the respiratory apparatus."

To divest the above of all paraphrase, we should say the changes alluded to, were the result of *bronchitis*, affecting the remote ramifications of the bronchiæ, without wishing in any degree to countenance the rather undigested notions of the author, as to the adhesions of mucous membranes.

We feel much indebted to the author for the facts he has detailed; they confirm views very generally entertained, that severe, and especially fatal cases of pertussis are attended by what was formerly termed inflammation of the lungs, now, more specifically bronchitis and that such inflammation is often the immediate cause of death. But what light does this throw on the nature of hooping cough? Are we to infer that this affection is nothing more than an inflammatory affection of the bronchiæ? Such evidently is the conclusion of our author, and must be the conclusion of every one who, like him, confines his pathology to lesions of structure, and confounds diseased actions with their effects,—alteration of tissues. But if any one will consider the peculiar symptoms of pertussis; the sudden and paroxysmal character of the cough, the sonorous inspiration, the perfect intermission of all the symptoms, the absence of fever, the regularity of all the functions of organic and animal life, during the existence of this complaint in a large proportion of cases, not to dwell on its supposed contagious character, or on its indisposition to affect individuals a second time, will find abundant reason to believe, that post mortem examinations alone have not yet elucidated, and probably never will elucidate its pathology. We would, moreover, embrace the opportunity of observing, that morbid anatomy is but one means, however valuable it may be, for establishing pathological and therapeutical principles: and however disgraceful it may be for any professional man at the present day to be ignorant of the effects of disease as revealed by the scalpel, still no correct pathology of any disease can be deduced from morbid anatomy alone. There are many diseases, and various important phenomena in all complaints to which our complex systems are liable, which are not in the least degree elucidated by autopsic examinations,—a fact itself fully confirmatory of the observations we have ventured to make.

[We believe with the reviewer that, however important pathological investigations may be in hooping cough, or other diseases, we must be extremely cautious that we do not confound effects with causes. And we must not lose sight of the fact that, in discerning the particular morbid condition of organs seen after death, is but negative proof at best, that any thing similar exists in those who do not die. We have a right to believe, when we see certain impairments as the result of a disease of which persons die, that such is the general tendency, but as one shall recover while another dies, we can never, *à priori*, know to what extent such impairment may go, in cases of recovery. If we rely on the stethoscope, it is only in cases well marked with organic impairment, that we can obtain any clear indications.

[Although we believe that hooping cough is attended with inflammatory symptoms when aggravated, we more than doubt the existence of much inflammation in ordinary cases. The disease appears to be almost wholly spasmodic—and its most usual duration of several weeks, or even months, is a proof of the absence of inflammation, otherwise indurations must take place, which could never be removed. And we know that notwithstanding the obstinacy of hooping cough, till its course is run, yet there are frequently cases which admit of immediate cure—the tincture of cantharides given freely, has sometimes succeeded, and the prussic acid; and belladonna will succeed still oftener.]

[*Alexander Copland Hutchison, F. R. S., &c. &c.*; it is said, has written two papers in which he maintains that calculus of the bladder is comparatively a very rare disease among seafaring people. If such be the fact, and the author founds his opinion upon "statistical details," it furnishes information highly important, since we know that in many cases where we operate for calculus in the bladder, the predisposition to return, of the disease is very great; and it would be a matter of great importance to send such patients to sea. This might often be done without any disadvantage or inconvenience in young subjects.]

[*Philip Crampton, M. D. &c. &c.* has reported a case in which he tied the common iliac artery, for the cure of an aneurism; in doing which, he does justice to doctor Mott, of New York, who has successfully tied that artery some years since. As the case involves some points of great importance, we shall quote the relation of it, to be seen in the North American Medical and Surgical Journal.—In the review of this case, it is said, "we regret to add, resulted (that is the failure,) from the use of an animal ligature." We deem this remark unqualified, as it is calculated to do great mischief; and since we believe that in the present case, the fault is quite erroneously ascribed to the animal ligature, we shall

presently investigate this point; but let us first present the case as given by the reviewer of doctor Crampton's paper.

"The patient, P. McGowan, aged 30 years, hitherto healthy, was admitted into the general hospital, Dublin, on the eighth of July, 1828, with two aneurismal tumors, one about the size of a pullet's egg in the right ham; the other in the right iliac region, extending from about three inches below the crural arch on the right side, to within about three inches of the umbilicus. The tumor was divided by a furrow in the line of Poupart's ligament; into two portions. After suitable preparations, the operation for securing the common iliac artery was performed, by Mr. (doctor) Crampton, on the 18th of July, 1828. The first incision commenced at the extremity of the last false rib, proceeded directly downwards to the os ilium, it followed the line of the crista ilii, keeping a very little within its margin, until it terminated at the superior anterior spinous process of that bone; the incision was therefore curvilinear, the concavity looking towards the navel. The abdominal muscles were then divided to the extent of about an inch, close to the superior anterior spinous process, down to the peritoneum. Through this opening and between the fascia iliaca and the peritoneum a probe pointed bistoury was passed on the finger as a director, and the abdominal muscles separated from their attachment to the crista ilii, so as to admit the hand. Detecting the very slight connections existing between the peritoneum and the iliac fascia, doctor Crampton was able to lift up the peritoneal sac with its contained intestines on the palm of his hand, and thus obtained a distinct view of all the important parts beneath, as the parts were unobscured by a single drop of blood; there lay the great iliac artery, nearly as large as the finger, beating at the rate of 120 in a minute, its yellowish white coat, contrasting strongly with the dark hue of the iliac vein which seemed double its size: the ureter in its course to the bladder, lay like a white tape across the artery, but in the process of separating the peritoneum, it was raised with that membrane to which it remained attached. The fulness of the iliac vein, varied, sometimes sinking below the level of that artery. The fore-finger of the left hand was passed under the artery, which with a little management was easily separated from the vein; and on the finger, a common eyed probe furnished with a ligature of moistened cat gut was passed under the artery and secured by the surgeon's knot. All pulsation ceased in the tumor; the artery was full and throbbing above the ligature, but empty and motionless below. The external wound was now closed, the operation having lasted twenty-two minutes.

The tumor soon diminished one-third; the pulse became full and bounding, so that venesection  $\frac{3}{4}$ xx was practised at 7 P. M.

At 10 o'clock the same evening, the patient was free from pain, tranquil, and his pulse at 88. The limb, with exception of the toes, was warm; vena saphena full.

On the 19th doing well, pulse 86, toes warm as those of the left foot. On the 20th some pain and rumbling in the bowels, relieved by a cathartic of turpentine and castor oil. An obscure pulsation is now, fifty hours after the operation, discovered in the tumor. 21st. Pulsation more evident, but none in the femoral artery, nor in the aneurism in the ham, which is diminished to half its bulk. 22d. Pulsation continues, and some thrill noticed. No particular change till the 26th, when the ligature came away, and the patient continuing in bed, suddenly felt a severe pain in his thigh and knee, the forepart of the thigh was numb. It lasted for ten minutes. On the 27th, much the same: on the 28th complained less, asked for nourishment, wound nearly healed; the tumor diminished by one-third, but the pulsation as strong as before the operation. At 6 P. M. while sitting up to take some gruel, the blood gushed suddenly from the wound, the patient fell backwards, and expired in less than a minute.

On dissecting the body next day, the common iliac artery at about three-fourths of an inch from the bifurcation of the aorta was lost in an oblong tumor, which terminated upon, but did not communicate with the sac. On opening the tumor, about half an ounce of greenish pus was discharged, and the artery was discovered contracted and marked where the ligature had been applied. On injecting the artery from above with air or water, the fact was established that the cat-gut ligature had been softened and thrown off, before the obstruction in the artery or the coagulation of the blood in the aneurismal sac had been completed. A small abscess had been formed in the place occupied by the ligature. On slitting up the artery, the internal and middle coats were found to be completely divided, and small portions of lymph adhered to its internal surface. The popliteal artery was far advanced towards a cure; the contents of the sac were quite solid; the tumor reduced to about the size of a walnut; the artery for six inches above the sac, was filled with a firm coagulum.

Doctor Crampton, infers that securing the common iliac artery is not only a feasible, but a very easy operation when executed by making the external incision high up, as in the present case. He also believes the difficulties encountered by doctor Mott, arose from his incision being too low. He also believes that the aorta could be secured with the same facility, provided it should ever be deemed advisable to perform this operation, the propriety of which several facts would seem to warrant under peculiar circumstances.

[We hope for the sake of science and humanity, that this case may not be made an objection to the use of the animal ligature. The fault was not in the choice of an animal ligature, but in one of an improper kind, and in the improper application of it. The present writer has related some experiments and observations in the late Philadelphia Recorder. In those experiments the following results were obtained, in the application of the animal ligature to the living vessels, in sheep and dogs. Animal ligatures of buckskin of proper size would remain undissolved for many days after the time necessary for the healing of the vessel. In healthy subjects there never was any suppuration. The vessels always healed under the ligature, whether it was tied around, or passed through the vessel, of a tapering shape. In a great number of experiments, upon the large arteries in the dead human subject, round ligatures, when tied reasonably tight, always cut the inner coat; and, if drawn firmly all but the cellular external coat were divided, and that coat much contused. When the buckskin strings, were hardened by drawing them between the nails of the thumb and the forefinger, they always contused the coats so much that there must have been some risk of suppuration, when applied so tight in the living body. Round ligatures always contused more than those that were flat. Our experiments went to support the opinion of Burns, Scarpa, Crampton, and many others, that it is not necessary to cut the inner coats, as advised by doctor Jones; and that there is much risk of tying common ligatures so tight as to contuse the whole of the coats, to an extent that no one could imagine till he sees it tried.

The whole of the circumstances connected with this case, we think, serve to prove, that there was disease in the artery, which prevented the healing of the artery by the first intention; and, we believe, it is admitted, at least with us it is no longer a question, that if an artery does not heal by the first intention, it will not heal at all. So that, had the ligature remained firm about the artery it would only have delayed the fatal event a little longer. An inflammation occasionally takes place, closely verging to gangrene, which does not assume all the signs of that affection, but which causes the artery to burst.

In support of the assertions that we have made, we shall cite two cases; the one to prove that an animal ligature, of a proper kind, will not dissolve too soon; the other, that an artery which does not heal by the first intention, will not heal unless a second ligature be applied at a sufficient distance from the contused or inflamed point of the artery. Some years ago we operated on the external iliac artery near its bifurcation—the aneurism for which we operated, commenced below Poupart's ligament, and extended eventually far into the abdomen. The artery was tied

with a buckskin ligature, every thing seemed to assume a favorable aspect till the 8th or 9th day, except a slight cold, which kept the patient feverish—gangrene suddenly appeared, and he died; on examining the body, the ligature was found firm about the artery.

In the year 1814, we saw a case of gun-shot wound, in which the femoral artery was injured and sloughed, which gave rise to a necessity for tying the vessel; two thread ligatures were applied, and the artery divided between; in doing which the surgeon unfortunately wounded the femoral vein. A few days afterwards the artery bursted open, although it was perfectly sound when tied—the ligature had slipped off—it was tied higher up; in a few days, we had hemorrhage again, at which time the patient died suddenly, although there was no great hemorrhage. On examining the limb, it was found in a state of gangrene. But how many cases of secondary hemorrhage could be collected where the thread ligature was used; and, mostly, we believe, from the harsh ligatures contusing the coats too much,—and although the animal ligature may be applied free from this objection, we know full well, that it may be applied so as to contuse the coats too much, and this was obviously the case in the patient before us, we mean the case of Mr. Crampton. And here too the ligature was round, that is, catgut, which we think is too dissoluble.

The experiments of Scarpa, Travers, Crampton, and our own, to say nothing of all others, prove most abundantly, that, it is not necessary to cut the inner coat of an artery to ensure its healing. The suggestion by M. Amussat, for securing the arteries by the *tortion* also adds proof too substantial to be doubted, that the division of the coats is not necessary. Our good friends doctors Gerson and Fricke assured us, at Hamburg, that they had the most entire confidence in this method of closing the arteries; the latter, whose practice we were told is very extensive as a surgeon, told us that he had not used a ligature for nine months; and the former had used the *tortion* for some months, in the very large hospital under his care; and we saw him apply it in a case of amputation of the leg, and in trepanning, where he cut some branches of the temporal arteries.—Since our return from Europe we have used it in many of our operations upon tumors, amputations of the female breast, &c. In a word, we hope most sincerely, that this case may not be made to oppose the use of the animal ligature, but that in future, they be made of proper material, and tied no tighter than is necessary to bring the sides of the vessel into contact. The best material is buckskin, or kid-leather, very soft, but moderately thick, and broad enough to remain flat when drawn moderately tight. In cases of

aneurism, the torsion will probably never be attempted; it is highly important, therefore, that we get upon the use of the best ligature, and we know of nothing which may be so confidently relied on, in the practice of surgery, as the skin ligature—we speak from ample and long experience.—We have never had a case of secondary hemorrhage!

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ART. VI. *Cases illustrating some of the disorders arising from Abdominal Irritation in children; with general remarks.* By R. N. ALLEN, M. D., Harford County, Maryland.

I HAVE long been of opinion, that with the exception of the affections of the mucous membrane of the air passages, and of miasmatic fevers; nearly all the diseases of children either arise from, or are closely connected with, an irritation in some of the abdominal organs; and chiefly in the tract of the alimentary canal. This opinion was at first drawn from actual observation; and I think it has been fully confirmed by the effects of remedies, employed with constant reference to the removal of such irritations. Nine-tenths of their diseases may be cured, at any period before the sympathetic irritations have produced actual inflammation of the irritated organs, simply by the use of purgatives to an adequate extent. Even where inflammation has supervened; the same process, with blistering, revulsives, and a due attention to the functions of the skin, will very generally succeed.

It is universally known that the diseases of children are vastly more frequent and fatal in cities than in the country; and of infantile diseases, so far as they are produced or modified by city life, I am not prepared to say any thing from experience. Excepting the dysentery, and the complication of pertussis with this or other affections of the bowels; a fatal event in any of the diseases suffered by children in healthy parts of the country, ought to be extremely rare; as such diseases may almost uniformly be conducted to a favorable issue, under very simple modes of treatment.

Perhaps it may not be improper in this place to offer some observations in relation to the disease called *hydrocephalus internus*. So far as I have witnessed this affection, it has *uniformly* and obviously resulted from abdominal irritation; and in the

early stages, has *always* been found completely under the control of remedies, directed to the removal of that cause. I have very often witnessed the symptoms said to constitute the first stage of hydrocephalus; but never saw a solitary case which resisted treatment; if commenced before the occurrence of strabismus, hemiplegia, or other symptoms indicating actual pressure on the brain. Such has also been the experience of my brother, doctor Matthew I. Allen, who has practised for the last ten years, in one of the sickliest counties of the state; and who has been constantly conversant with all the forms of miasmatic fever. Our practice has always been directed to the abdominal organs, and has been conducted almost entirely by purgatives and mercurials. The latter have been employed as alteratives, and have not been pushed so far as salivation; while the former have always been continued, till the removal of all sources of irritation from the alimentary canal.

In thus stating that I have never seen the symptoms said to constitute the early stages of hydrocephalus, to arise from any other cause than abdominal irritation; or known them to exist unconnected with such irritation; I by no means wish to be understood as asserting, that they cannot be produced by any other cause. I am, however, clearly of opinion, that they arise from this source so generally, as to render the exceptions extremely rare; and in this opinion I am sustained by many writers of high authority. In the London Medico-Chirurgical Review, for 1820, the editor, in reviewing the treatises of doctor Cheyne, Yeats, and others, declares it as his opinion, that "symptomatic hydrocephalus occurs perhaps *fifty times*, where the idiopathic species occurs once." Doctor Philip, in a supplement to his work on indigestion, holds the following language:—"For *once* that the hydrocephalus of children arises from other causes, it arises *twenty times* from affections of these [the digestive] organs." And again—"indigestion lays the foundation of most of the diseases of infancy."

In conformity with these views, I believe that the treatment of hydrocephalus should *always* be conducted with a view to abdominal irritation; and whatever treatment may be directed to the brain as the seat of the sympathetic irritation, the abdominal organs should in no case be neglected. It is fortunate indeed, that the same remedies which remove the sources of irritation from the alimentary canal, have also a powerful tendency to relieve any engorgement in the vessels of the brain. Having always given purgatives with great freedom, I must confess, that I have very seldom employed the lancet in any of those febrile or nervous affections, which are said to constitute the early stage of hydrocephalus. Diuretics I have wholly disregarded.



My design in furnishing this paper, was merely to give some cases illustrating some of the most common symptoms arising from abdominal irritation; and had no special reference to hydrocephalus. Having long desired, however, to record the main results of my experience and observation in relation to this disease, I thought the present a proper and convenient opportunity for doing so.

As no diary was kept of several of the cases, but they were merely stated from recollection, some time after their occurrence; the statement of these can only embrace the more striking symptoms, and must of necessity be in some degree defective. I regret that I have in general kept no accurate record of the many cases which I have seen, attended by that assemblage of symptoms denominated incipient hydrocephalus.

Case 1. A. P. a little girl aged about 3 — 1817.—Complete coma—depressed and extremely irregular pulse—pupil dilated and incontractile. Such was the general condition; but at intervals of from 15 to 20 minutes there occurred excruciating pain of the abdomen, attended by screaming, and general spasm. These paroxysms lasted from 5 to 10 minutes; and terminated in complete insensibility, as above described. This state of coma, alternating with the paroxysms of pain and spasm, continued for about 48 hours; but the intervals of insensibility were frequently much longer, and the paroxysms of less frequent occurrence.

Opium, the warm bath, vermifuges, and cathartics, were the principal remedies employed. External irritation was also freely practised. Very large quantities of calomel, castor oil, and jalap, were given before the bowels could be moved. The accomplishment of this object was attended by the discharge of about 135 large lumbrici; and was followed by a speedy return of health.

One circumstance occurred during the treatment of this case, which I think entitled to particular notice. At one period of the disease, I was called up to visit the little patient in the middle of the night, and on my arrival found that, besides the symptoms above described, she labored under an incessant, and most distressing tenesmus, with total inability to effect any discharge. Enemas were of course thought of; but as it would have been extremely difficult to keep her still sufficiently long to allow their administration, some large boluses of hard soap were introduced within the anus. These effected the discharge of sixteen large lumbrici twined together into a solid knot which had completely obstructed the passage of the rectum. The removal of these worms gave immediate and complete relief to the tenesmus.

This case illustrates that law of the nervous system, by which any irritating cause giving rise to extreme pain or convulsion, produces these effects only at intervals, and in the form of par-

oxysms. The same occurs in cases of irritation from calculus, whether in the urinary bladder, or gall-ducts.

It also exemplifies the extreme degree of sympathetic cerebral disturbance which may exist, without any local lesion to prevent immediate recovery, on the removal of the irritating cause.

The obstruction of the rectum by worms, shews the possibility of fatal obstructions from the same cause, in other portions of the alimentary canal.

Case 2. Daughter of J. F. Dublin, Harford county, aged about 3 — December, 1819.—Complete insensibility—depressed and irregular pulse—dilated and incontractible pupil—cold skin—swelled abdomen. Immediate death was expected by the family.

From the history of this case, which I cannot now accurately recollect, I thought that the stupor, and prostration arose from the irritation produced by intestinal worms. The state of the skin and pulse forbidding evacuation, I depended on a combination of spigelia and worm-seed oil; with diffusible stimulants and blistering. In the course of about 24 hours, 125 lumbrici were discharged; and the patient rapidly recovered.

Case 3. Child of H. P. aged 3 or 4 — March 26th, 1821.—Considerable stupor—frequent subsultus tendinum and starting—hot and dry skin—yellowish white tongue—depressed but quick pulse.

The treatment of this case was commenced by some doses of spigelia, followed by calomel and jalap. Great quantities of these medicines were required before the bowels could be freely moved; and when this was effected, the discharges were of a highly morbid appearance.

Six grains of calomel, with a dose of Henry's calcined Magnesia were given daily, on the three succeeding days—the 27th, 28th and 29th of March. During all this period the discharges were either black or green; and the symptoms of cerebral oppression and nervous disturbance continued. A determination to the skin was supported during the same period, by a combination of sp. nitri. dulc., with small doses of tartarized antimony; and by the occasional employment of the warm bath.

30th. The debility having increased, the diaphoretic medicine was changed, for a julap of camphor and serpentaria.

31st. Ammonia added to the diaphoretic mixture—action of the bowels maintained by small repeated doses of purgative medicine.

April 1st. Discharges much more natural, but the intestines still torpid, requiring the occasional use of aperients. Stimulating diaphoretic laid aside.

## 2d. Convalescent.

It is necessary to add, that blistering was also employed on the 29th, and the irritation continued through the remaining period of the disease.

No worms were discharged in this case, nor was the vermifuge medicine given with the opinion that the intestinal irritation arose from that source. But as there is always some chance that the existence of worms may be aggravating the irritation produced by other causes; I very generally add some doses of vermifuge medicine, to the cathartics which are always indispensable. Of all the medicines given as anthelmintics, I regard the *spigelia* and the oil of wormseed as the most effectual; when followed, as they always should be, by active purging.

The *spigelia* is said occasionally to produce distressing effects upon the nervous system. After much experience in its use, I have been led to doubt these effects; or at least to presume that they are extremely rare, or produced by some improper mode of management. After having given this medicine with very little caution in some hundreds of cases, I cannot recollect to have seen a solitary example of nervous disturbance, which seemed to be justly attributable to its use. I have very commonly given it in all cases where I suspected the existence of lumbrici—with but little discrimination, in very various doses, and without any other caution than the free evacuation of the bowels afterwards. I am disposed to think that some degree of error in regard to its supposed noxious qualities, has arisen from attributing to it, effects arising from the disease for which it is commonly administered. I have for a long time given it entirely in substance; and think it much more efficacious in this form, than in infusion.

Case 4. F. W. aged 8. April 10th, 1827. Attacked last evening by fever, nausea, cough, with pain of the breast and side, and highly difficult respiration—the pulse was quick and variable in force, but generally weak; tongue covered with a yellowish white fur; skin hot and dry; thirst urgent; cheeks marked with a circumscribed flush. Accompanying these symptoms, there was a great degree of subsultus, with frequent convulsive startings, seeming to threaten an immediate attack of general convulsion; and delirium existed.

This case was treated on the 10th and 11th, by mercurial and other cathartics; a diaphoretic of *sp. nitri dulc.* and tartarized antimony; pediluvia twice a day; and a blister to the breast.—Demulcents were also given; and small quantities of cold water were allowed, on account of the urgent thirst.

During all this time the nervous disorders continued with little variation or abatement; but about half of her time was oc-

cupied by a state of stupor, from which she occasionally started, with delirium, a wild and agitated countenance, and a degree of subsultus which appeared to threaten convulsion. The administration of medicines was much impeded by a troublesome irritability of the stomach; but a tolerably free catharsis was nevertheless procured, which was attended by the discharge of much bilious matter, and 12 lumbrici. Pain in the abdomen, and picking of the nose and lips, had occurred at intervals, during these two days. On the evening of the 11th, the neck and legs were blistered.

12th. Much better—nervous affections greatly abated—heat of skin moderate, except on the hands and feet, which are hot and dry, and there is some general moisture—tongue cleaning at the edges—pulse soft, and not so quick—delirium gone—countenance tranquil and intelligent—thirst abated.

Calomel gr. v. }  
Magnes. calcin. gr. x. } immediately—same diaphoretic every 2 hours in  $\frac{1}{2}$  oz. of an infusion of serpentaria.

13th. The cathartic of yesterday operated 4 times, discharging dark colored bilious matters, and 4 lumbrici. Condition somewhat similar to that of yesterday. No alvine evacuation since 1 P. M. yesterday—some hemorrhage from the nose, both yesterday and to day—a slight degree of hemoptysis, with a free expectoration of yellowish mucus—a circumscribed flush on the cheeks—singular nervous affection of the right eye, giving the sensation of a foreign body, but unattended by any degree of inflammation—gums affected by the calomel.

Pulv. rhei gr. x. }  
Magnes. calcin. gr. v. } immediately—same diaphoretic pediluvia continued.

14th. Worse—considerable fever, with increased debility—hemoptysis continues—affection of the eyes diminished—respiration quick and painful; and performed chiefly with the diaphragm and abdominal muscles—tongue brown and dry. The aperient of yesterday acted only once.

This case seemed now to present a very critical complication of abdominal irritation and general debility. The intestinal discharges had borne a very morbid aspect from the outset; and the obvious connection of many of the former symptoms, with this circumstance, did not allow me to doubt that a similar source of irritation still existed; and led me to consider it as the cause of the present aggravation of the disease.

Calomel gr. iij. }  
Pulv. rhei gr. x. } immediately—an opiate if it act more than

once—same diaphoretic, with serpentaria—nutriment very frequently.

15th. The cathartic medicine of yesterday acted twice and was followed by the opiate—better—no pain or hemoptysis—no nervous affection—fever less—respiration easy.

Camphor added to the other medicines—wine,  $\frac{1}{2}$  oz. every 3 hours, whenever the heat is moderate.

16th. Better in all respects—cough greatly abated—skin continues moist under the continued use of wine, accompanied by stimulating diaphoretics—strength increased, so that the patient can occasionally sit up in bed—bowels regular, and discharges natural. Same medicines continued; but given at longer intervals.

17th. Wine and other medicines withdrawn—an infusion of quassia and serpentaria, with 4 drops of elix. vitriol, every 3 hours—syrups and demulcents.

19th. Same bitter three times a day—6 drops of elix. vitriol with each dose. She now seems free from disease; debility only remaining.

21st. Well.

In this case, I think it highly probable that all the symptoms, thoracic as well as cerebral and nervous, originated in the morbid condition of the alimentary canal. The latter at least, depended obviously on that condition; and but for the persevering removal of the irritating causes, must have terminated either in immediate sympathetic convulsions, or in hydrocephalus. The treatment was in general regulated by the two great indications presented in a vast majority of infantile diseases—the removal of abdominal irritations, and the support of the functions of the skin. The affections and the stupor, rendered counter-irritation and excitement by blistering indispensable; and the progress of general debility rendered it necessary to add wine and other stimulants.

Case 5. R. A. T. a girl aged two and a half years.

May 13th, 1827. Consulted by her father, who states that she has a violent fever of the remittent type; with considerable nervous affection, and pain in the abdomen. Calomel and spigelia ordered; to be followed by castor oil, till a free operation is procured.

18th. Sent for. Fever somewhat abated since the action of the medicine sent on the 13th; but a low condition has supervened; with subsultus, extreme stupor, and considerable dilation of the pupils. The former medicine produced copious bilious discharges, accompanied by 16 lumbrici. Tongue white and moist—considerable cough.

Castor oil ordered in repeated doses, till the bowels are moved—a combination of *sp. nitri dulc.* and tartarized antimony, as a diaphoretic—a blister to the breast.

19th. Condition similar, but the debility and stupor increased.

A combination of *sp. corn. cerv.* and *sp. nitri dulc.* ordered in an infusion of *serpentaria*—blister to the neck, and one to each leg—nutriment in small quantities frequently. This treatment was continued till the 24th; interposing aperients, so as merely to secure the regular evacuation of the bowels.

24th. Convalescent.—A vitriolic solution of the sulphate of quinine ordered three times a day—bowels to be regulated when necessary, by castor oil.

My notes of this case, though accurate so far as they go, are obviously defective; especially in not stating the frequency and nature of the alvine discharges, after the commencement of my attendance on the 18th. This deficiency my recollection does not enable me to supply. The stupor, subsultus, and dilated pupil, occurring without a typhoid condition of the tongue; appear however to have indicated a considerable degree of sympathetic cerebral oppression and disturbance: while the abdominal pain, and the nature of the first discharges, rendered the source of these symptoms sufficiently obvious.

In laying the above cases before the profession, I am well aware that they are not recommended to attention, by the grace of novelty. They belong to that class of infantile diseases, which is of all others the most common; and which, with the exception of the cholera infantum, constitutes the most extensive source of mortality among children. They serve, however, to illustrate the views which I have advanced, in regard to the almost universal connection existing between the cerebral and nervous disorders of children, and abdominal irritation—views which I am happy to find sanctioned by several writers of the first eminence; but which I fear have not generally, and I know have not always, their proper influence over the treatment of those affections. It has fallen to my lot repeatedly, to see those sympathetic irritations and inflammations, both of the brain and other organs, treated as if altogether primary; while the original sources of irritation, which to me seemed entirely obvious, received no part of the attention of the practitioner, I have thus seen such diseases protracted for weeks, and unnecessarily complicated with established inflammation, or actual lesion, of the organs sympathetically irritated; where I felt a perfect conviction, that two or three mercurial cathartics at the outset, would at once have arrested the disease, or have left the patient little to contend with but debility.—Persuaded, therefore, of the importance of the views which I have here endeavoured to incul-

cate; I have thought that a few cases in illustration of them, would be more acceptable than an elaborate essay, on a subject which has been so often elucidated by abler pens.

In conclusion, I beg leave to state a case which was related to me by a gentleman who practised for some years extensively in this county, and whose general views in regard to this cerebral and nervous disorder of children were somewhat similar to my own. This gentleman was called to visit a child which was lying in a state of comatose insensibility, with dilated pupils, and which had been attended through the earlier stages of its disease, by an intelligent physician in the neighborhood, the latter had pronounced the child to be in the last stage of hydrocephalus, and declared that a fatal event was inevitable. The other gentleman, however, thought differently of the case; and after the administration of some vermifuge and other medicines, a great number of lumbrici were discharged, and the little patient rapidly recovered.—Of the previous history of this case I have learned nothing; but it was one which was thought by a very intelligent physician to constitute the last stage of hydrocephalus; and yet the removal of an obvious and common cause of abdominal irritation, was followed by immediate recovery.—I think proper to add, that I consider the presence of worms, and a vitiated secretion of bile, as the two great sources of that intestinal irritation, which produces so large a share of infantile diseases. The latter, however, is by far the most universal.

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ART. VII. *Observations on the Talicotian art, or the formation of artificial noses by surgical operation.*

WHATEVER opinion we may form respecting the accounts of the formation of artificial noses, by surgical operation in the east, in early ages, notwithstanding the rude state of surgery, which then, and indeed, always has existed throughout pagan countries, it is now certain, that modern surgery has achieved this highly important acquisition. The superstition connected with the ancient accounts of the temporary existence of such noses, may, therefore, no longer be admitted as the foundation of the following rhyme given by Hudibras.

“But when the days of Knox are out,  
Off drops the sympathetic snout.”

Closely associated with the successful practice of removing the deformity arising from the loss of noses, is the name of Carpué,

who, many years since, reduced the former fabulous accounts to reality. But while we stop barely to mention the name of this gentleman, as one of the first successful operators, we are well aware of the fact, that no great novelty now attends this operation—it having been performed by surgeons very generally in Europe.

The present writer had the pleasure of seeing two persons at the Hamburg hospital, in the summer of 1830, who had undergone this operation—a man and a woman, both young persons.

We must confess, however, that while we were surprised to see so little deformity left on the forehead, after taking a sufficiency of substance to form the nose, we felt disappointed at seeing both noses small and ill looking, for want of the *columna nasi*, or any thing to answer in its stead in any tolerable manner. Our friend doctor Fricke, stated that the result of his operations was not quite satisfactory to himself, and that, he believed that hereafter he should do better, by borrowing more largely from the forehead. Whether any thing better is to be seen than the noses we saw, we will not undertake positively to say, but from what we read in the *Edinburgh Journal*, respecting the experience of Mr. Liston on this subject, we are much inclined to believe that no better can be formed without the extension of this operation, as was done by Mr. Liston, so as to form an artificial *columna*. Our opinion on this point is much strengthened by the circumstance of our having seen the account of our friend doctor Deffenbaugh of Berlin, of a case of which he took drawings of the appearances of the operation, in its different steps; and of the appearance of the new nose as the cure progressed, until it was completed. The appearance of the artificial nose was very similar to those seen at Hamburg. From the high opinion which we have formed of the surgical talents of our two German friends, Fricke and Deffenbaugh, we strongly suspect, that those formerly made in London, and elsewhere, were not much if any better. If such be the fact, and the report of Mr. Liston, of his experience, strongly supports that opinion, the observations and cases of this gentlemen must be highly important—such being our opinion, we shall quote Mr. Liston's observations on a new operation, from the *Edinburgh Journal*, for January, 1831.

"Operation for restoring the *columna nasi*. By Robert Liston, F. R. C. surgeon, one of the surgeons to the Royal infirmary, lecturer on surgery, &c."

Case 1. More than 7 years ago I was consulted by Mr. M., then aged 16, on account of deformity occasioned by loss of the *columna nasi*, of the cartilaginous septum, and of part of the osseous septum, in consequence of external injury. At that time



I proposed as soon as the discharge had ceased, to furnish him with a new columna from the upper lip, and had several conversations with his friends on the subject. The proposal, however, was not acceded to, and I lost sight of Mr. M. till the beginning of 1828. In July, 1828, I performed the operation as originally planned. The patient's head being held backwards, the under surface of the point of the nose was pared, so as to present a raw and concave surface; a bistoury was twice passed through the upper lip, close to the root of the original columna, and each time carried forwards to the mouth in a straight direction, and with little sawing motion, so as to include a slip of about a quarter of an inch in breadth. This strip composed of skin, mucous membrane, and the interposed tissues, was then deprived of its prolabium, and elevated without twisting, so that its oral margin was placed in contact with the raw surface on the tip of the nose; and in this position it was retained, by a point of convoluted sutures, a pin being passed obliquely through the point of the nose, and the upper part of the new columna. The raw edges in the wound of the lip were brought into accurate apposition by two points of twisted suture, as in the operation for hare-lip.

The points and ligatures were moved after a few days, and adhesion was found to be completed. The lip, which before was too full and dependent in the centre, had united with very little mark, and was materially improved in appearance. The union of the upper portion of the slip was also perfect; and by supporting this part by a small round compress, and carefully plugging the nostrils, so as to distend the *alæ*, the patient's appearance was totally changed. The point of the nose could not fall downwards; the *alæ* were not sunk and approximated to each other, but tense and natural; and the cavity of the nostrils was not exposed, presenting the appearance of a dark foul sore, but hid and protected by the firm and fleshy new columna. The patient, instead of being constrained by horrid deformity to confine himself to his house and surrounding grounds, was able to mix in and enjoy society, without its being observed that any operation had been performed to improve his countenance. That part of the membrane of the mouth forming the outer surface of the new columna, remained reddish for some time, but by exposure gradually assumed the same color, and apparently the same structure, as the surrounding skin.

Case 2. Anna Riley, was admitted into the Royal infirmary on the 10th of August, 1828. There was very copious and fetid discharge from the nostrils; the triangular cartilage and columna nasi, were completely destroyed; and the inner surfaces of the *alæ* extensively ulcerated. The point of the nose had become quite flat and depressed, from the loss of its natural support.

The disease was of six months duration, and commenced without evident cause.

On the 7th of October, ulceration had ceased, and I formed a new columella, in the same manner as has already been described. The parts united by the first intention, and the operation succeeded perfectly.

On the 27th she was dismissed with features greatly improved.

Case III. Mary Anne Love, aged eleven years, was admitted about 18 months ago, laboring under lupus. The alæ of the nose, the upper part of the upper lip, and the inner part of the nostrils, presented one continuous surface of angry ulceration. The columella nasi and part of the cartilaginous septum were destroyed, and the point of the nose was flattened and depressed. The discharge from the ulcer was acrid, and highly offensive, and the countenance was very much disfigured.

The disease had existed for six months previously to her admission; and during that time various applications had been employed, with the view of checking the ulceration, but without effect.

In the Infirmary, means were taken to improve her general health, and the sore was touched occasionally with spirit of turpentine. Under this application the ulceration seemed to be arrested for some time, and the aspect of the sore began to improve; but the benefit was temporary, and the liniment having lost its influence over the irritable surface, was disused. A solution of the nitrate of silver was then employed, and that also, though at first beneficial, gradually became inefficacious. Solutions of the sulphates of zinc, and of copper were afterwards had recourse to; and by changing the above applications, according as each became inactive, the sore was brought into a healthy state, and the process of reparation commenced. The topical remedy which all along proved of most service, and under the use of which the parts were ultimately brought to cicatrize, was the spirit of turpentine.

By the middle of last May, cicatrization was almost complete, and I prevailed on the patient to have her deformity removed by the formation of a new columella. The operation was performed in the same manner as in the preceding cases, and adhesion was completed in both the nose, and lip, in two or three days. The columella was supported by compress and bandage, and the alæ were kept distended by dossils of lint.

Ulceration has not returned; and the margins of the alæ, which were not quite healed previously to the operation, are covered with thick crusts, and apparently cicatrizing. The

change in her appearance is very flattering, and promises to be still more so, when edema leaves the part.

Case IV. In the summer of 1827, I performed the Indian operation for restoration of the nose, on Charles Thorne, and gave some account of his case in the 92d number of this Journal. I then stated that the operation had completely succeeded, except in the columnar part, and that I intended to repair that deficiency as soon as the patient would submit to farther procedure. To this, however, he was averse, and left this part of the country.

In August last, he again presented himself, and was now anxious that the operation should be performed, as the point of the nose had necessarily fallen much down from want of mesial support. I made him a new columna (the third he had had) from the upper lip, having previously elevated the point of the nose as much as possible. The parts adhered quickly and firmly, and he left the Infirmary much pleased with the support and improved appearance which the *new feature* of his countenance had obtained.

Case V. Mr. R. H. enjoyed good health till April, 1827, when he had a smart attack of tertian ague, which yielded to the use of sulphate of quinine. In the following August, after severe mental exertion, he complained of pain in the head and general indisposition. He was advised to abandon professional pursuits for a season, and went to Brighton, where he was seized with violent pleurisy. Early in October he had another attack of tertian ague, with severe pain in the right side of the head. Aguish symptoms continued to harass till December, after which he remained well till April, 1828, when he was again affected with ague, pain of the head, debility, &c. and these symptoms returned in January following.

In July, 1829, he was sent to Leamington, and while there incrustations began to form in the nostrils, and on the separation of the crusts, putrid discharges occurred. The discharge continued till the latter end of September, when he went to London. There his case was pronounced to be one of secondary syphilis, though the patient declared then, and declares still, that he never had primary symptoms; and accordingly, he was ordered blue pills, sarsaparilla, and eventually mercurial friction. His mouth soon became affected, and the salivation was very profuse. In October the bones of the nose and palate began to exfoliate, and the patient became much reduced. Early in November, severe inflammation of the eye, and of the side of the face, supervened; and Mr. H. was bled, purged, and starved. The inflammatory action was soon subdued, but was followed by a violent attack of diarrhea, which brought the patient very low.—

From this time he regained strength gradually, and now enjoys excellent health.

He applied to me in August last. The exfoliation has been extensive, and caused apparently by the abuse of mercury. In the posterior part of the palate there is a large deficiency, which the patient is obliged to supply by a metallic substitute; and the lower part of the osseous septum is destroyed. The cartilaginous *septum* and *columna nasi* were gone, and the nose lay quite flat on the face, with its wrinkled *alæ* sunk on the floor of the nostrils, and its point adhering to the upper lip, where the root of the *columna* had formerly been.

The first thing to be done in this case was to prepare the parts for the columnar operation; and, accordingly, I divided the attachment between the point of the nose and the lip, removed the ruinous remains of the *columna*, and separated some adhesions within the nostril that had formed during the cicatrization, raised the apex of the nose, and distended carefully its *alæ*. By these means even, the appearance of the patient was much altered, and he began to be satisfied with what had been done. He was persuaded, however, to get a more durable and elegant support for the parts than dossils of lint, and underwent the columnar operation on the 31st of August.

In this case, as in the others, union took place by the first intention; and, I need scarcely add, that the result is very satisfactory.

Such is a short outline of those cases in which I have had occasion to form a new *columna*. The deformity caused by the loss of this prominent part is very great, indeed almost equal to that occasioned by destruction of the whole nose; and an operation for the removal of such deformity, so simple, so effectual, and, I may add, so neat, cannot fail to be approved. The lateral slip, destined to form the new *columna*, should not be twisted round so as to present its cutaneous surface externally, but merely elevated and affixed to the point of the nose. By twisting, the chance of success is diminished, and if the part does not adhere, it is thick and clumsy. The mucous membrane forming the inferior surface of the *columna*, retains some of its characters for a few weeks, but gradually assumes a cuticular appearance. For some time after the operation, on tickling or compressing it, the sensation is referred to the inside of the mouth. Though it might be supposed that in a male adult, the beard on the inner surface of the new *columna* would prove a source of irritation, this is not the case; the hairs lose their stiff and bristly character, not being cropt frequently as before, and being constantly moistened by the mucous secretion of the nos-

trils. In fact, they come to resemble those hairs that grow naturally from the parts.

In the above cases the incisions always adhered by the first intention; and I should think that if proper care be taken to place and preserve the raw surfaces in accurate contact, adhesion will always occur, little or no mark remaining. Indeed, the appearance of the upper lip will always be benefitted by the operation, for when the columnna is lost, the lip becomes elongated and tumid at its centre; and by a narrow slip being removed from it, this defect is obviated, whilst the cicatrix, from being in the situation of the natural depression, is scarcely observable.

In the after-treatment, it is necessary to keep the *alae tenae* by dossils of lint, in order to assist the columnna, not yet sufficiently consolidated, in supporting the parts in their natural situation; and when the columnna itself becomes tumid, a compress and bandage should be neatly applied over it.

When the cartilaginous septum is destroyed, as is generally the case, of course an aperture remains between the new columnna and the osseous septum, but that is not perceived unless on close examination, and does not annoy the patient.

In a recent number of the *Journal Hebdomadaire*, a case is recorded, in which attempts had been made to restore a lost columnna, first by M. Dupuytren, of Paris, and afterwards by M. Gensoul, of Lyons. The operation failed, and the nose became approximated to the lip. M. Dupuytren raised a *flap of integument* from the lip, and adapted it to the nose, after having *twisted it round*. Had he formed his columnna from the *whole thickness of the lip*, there would have been no necessity for *twisting it*, and in all probability the operation would have proved successful.

N. B. The two first cases are detailed in the *London Medical Gazette* for April 17, 1830.

ART. VIII. *Case of Wound of the Urethra.* By HORATIO G. JAMESON, M. D.

I WAS called into consultation, on the 2d of July, 1831, with doctors Lee and Yeates, in the case of Mr. Dismyre, who had received a severe wound of the perineum the day before. He was standing on a board, elevated somewhat above a hog'shead standing upwards with its end out. The board gave way, and

he fell with one leg in, and the other outside of the vessel, so that the sharp end of the stave was driven up with violence into the perineum—he bled very freely. Doctors Lee and Yeates being called in, used their endeavors to pass a catheter, but could not succeed on the evening of the injury—the next morning their attempts were again unsuccessful.

Upon examining the parts I found that there was a free outlet for the urine, but still the external wound was small compared to the internal. The opening through the skin readily admitted the finger, and having introduced it, I found the integument separated throughout a considerable portion of the perineum, so that I could turn the finger freely around between the skin and the muscles, from whence I turned out a great deal of coagulated blood. I split open the skin to the extent of the wound, and exposed the wound of the urethra, and now saw that the urethral tube was cut entirely off; and presented surfaces very much lacerated and uneven. I also found that the stave had struck against the arch of the pubis, so as to denude the bone of its periosteum, just where the triangular ligament is attached; the perineal artery was divided, and bled pretty freely, but the parts being a good deal contused and injected with blood, I could not find the artery—I soon found, however, that it would not give much trouble, it soon ceased to bleed. I now made an effort to introduce the catheter, but could not succeed, although I tried catheters of different sizes, both silver and gum; also sounds. Such was the unevenness of the torn end of the urethra, that nothing like the urethra could be felt—the tube, together with the corpus spongiosum, was torn off. Being thus baffled, I took the posterior end of the urethra at the bulb where it was divided on a small tenaculum, and cut it off straight. I now had but little difficulty in introducing a silver catheter, and passing down a large flexible tube through the penis; I started it into the urethra behind the division of it, by running its end upon the silver catheter—then withdrawing the silver instrument, I passed in the flexible tube without further difficulty. Some contused cellular membrane was now dissected out of the wound, and the dressing finished by closing the wound, by means of a suture.

It was somewhat remarkable, that although the urine ran over the wound during the night, still there was no swelling, nor much pain or irritation of the wound, beyond what would have occurred in any other situation. After the introduction of the tube there was no leakage, nor swelling, nor pain; in short, the patient was exempt in a most extraordinary manner from suffering; all we are persuaded, from the fact of our having prevented the urine

from flowing through the wound. His diet was directed to be low, and he took a portion of salts every two or three days; a few times a little Dover's powder was given.

On the 17th day of July, it was necessary to withdraw the tube, in consequence of the tube being stopped, and becoming rough from the action of the urine on the gum of the tube.—After this, every thing went on well till the end of two weeks.

On the first day of August, it became again necessary to remove the tube, and introduce another. Up to this time, every thing was doing well.

On the 15th of August, it was again necessary to change the tube; becoming stopped, the urine flowed along the tube, and a part of it came out of the meatus urinarius, and part through the wound. This produced a slight hernia humoralis. But changing the tube, and applying cold lead water, by means of compresses soon relieved this affection, the wound healed up in a day or two, and gave no further trouble.

Aug. 21st. He has got the tube out, and cannot replace it, the urine flows freely and easily along the urethra, without any leakage in the perineum—indeed, the parts seem to be healed in that part. The tube was a large one, went in without difficulty, and the urethra seems to have contracted a little since the last previous introduction of the tube. It appears that the average period for the service of each tube is about two weeks; but we have sometimes got hold of tubes, about which we could discover nothing remarkable, that would become extremely rough from corrosion in 8 or 10 days, while others would be but little roughened at the end of three weeks.

It remains to be seen, how well the new portion of the urethra will perform its function. What with the retraction of the two ends, and what we cut off the hindmost end, in making a smooth surface, to enable us to find the urethra, there must be about an inch of deficiency—this must be formed of the surrounding structures. We deem it absolutely necessary to continue the use of the tube for sometime, in order to prevent the contraction of the tube or urethral canal, by the cicatrization of the wound.

Aug. 23th. I learn that during my absence from home the tube became very rough, and stopped on the inside—in consequence of this the urine came beside the tube; and, he thinks, a small quantity came through the very small opening which still remains in the perineum.

Aug. 26th. We examined the wound and found a very small opening in the perineum, with a good deal of discharge from the part, owing to the considerable irritation excited by the very rough tube. I found the tube filled with a tough mucus, and coated a good deal at its inner end, with white stony concretions.

Having lost my tube, by the way, which was intended for insertion, I cleared the old one, and passed it in without difficulty—this was done to avoid the risk of letting the urine pass through the wound.

This morning, Aug. 29th, I passed a new and quite large tube very easily. He came to my office for this purpose, and makes very little complaint, from walking with the tube in the urethra. The urethra being so well open at this distance of time, leaves strong hopes, that there will not now be any material contraction in the healing of the very small remaining wound in the perineum.

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ART. IX. *Case of a large Fungus Hematodes, happily cured by the efforts of nature.* Reported by S. B. SVENDSEN, in the transactions of the Royal Medical Society of Copenhagen.

A SOLDIER of the second Cimbrian legion; by name Sören Sørensen, twenty-four years of age, born and reared in the northern part of Cimbria, a healthy, vigorous, and sober man, who, as he himself affirmed, had never been sick; having a long neck and a flat breast, his whole appearance was such, as to afford every indication of a phthisical habit; came into the military Hospital of Copenhagen, on the 2d of March, 1825.—In the middle of the superior part of the anterior side of the right thigh, about the length of a man's thumb from the ligament of Fallopius, he showed a tumor, of the size of a goose egg, which, as he stated, had made its appearance within four days. The tumor was red and fluctuating, wherefore, I supposed it to be an abscess, and ordered the patient to keep his bed. An emollient cataplasm was then applied to the tumor. Some days having elapsed, the tumor of its own accord opened in its lowest part, by which aperture pus of a depraved character flowed out:—this was attended with some collapse of the tumor. On the third or fourth day subsequently, soft lint was introduced into the aperture, and the whole tumor covered with adhesive plaister; and I gave the patient permission to leave his bed and walk about his chamber: but shortly afterwards an increase of the tumor forced him to go to bed, and he was now advised to apply the emollient cataplasm. Three or four days having elapsed, the state of things not having changed, I explored the ulcer with a probe, and finding a deep sinus running lengthwise with the tumor, I



made a free incision, by means of a grooved probe and a knife; but on the following day the ulcer was filled with a mass having the appearance of fleshy papillæ. On the third day following, perceiving the sinus in the same condition, I cut through the fleshy mass and exposing a lesser sinus, running from the outer to the inner side of the thigh. I made an incision into this also; but, on the next day the whole ulcer was again filled with a similar mass, having the appearance of fleshy papillæ, almost no hemorrhage followed these incisions. To one of my colleagues, a skilful and experienced man, who had examined the case with me, I communicated my intention of extirpating the whole tumor, as it was of a suspicious nature. The operation appeared to me practicable, since the adjacent parts were soft and the tumor moveable; yet there would be some danger, on account of the femoral vessels which run beneath it. His opinion was, that extirpation was proper but difficult, yet practicable. However, the tumor increased in a short time in such a manner, that it ascended to the Fallopian ligament, and affected the adjacent parts with hardness and redness, so that a happy result from extirpation could by no means be expected; therefore, I thought no more of the operation. The patient now informed me, that he had been affected from his infancy with an induration at the seat of the tumor. Of the cause of the induration he was entirely ignorant. He stated that he had never been accustomed to the continued pressure of any kind of instrument on this spot. Venous hemorrhage now and then occurred, from the ulcerated surface of the tumor, yet of little moment and small granulations continued to grow. Heretofore the tumor gave no pain, the appetite of the patient was good, and his strength not diminished; but from the time, at which the granulations, just mentioned, began to form, his appetite, his strength, and flesh diminished; lancinating pains were felt in the tumor, and moderate bleeding of the nose occurred frequently. An emollient cataplasm moderately warm had hitherto been applied, and when hemorrhage took place the internal use of an acid mixture (*ex acidi sulphurici concentrati guttis xvj. mellis crudi ℥; et aquæ ℥ vij.*) was ordered.

On the 25th of June, of the same year, gangrene made its appearance on the ulcerated surface of the tumor, and a strong gangrenous fetor was perceptible. The gangrene formed furrows, running obliquely to the margin of the tumor, which were occupied by many small abscesses. Hoping that the whole ulcerated surface, when all these little abscesses were matured, would be kindly removed by suppuration, I continued the use of the emollient cataplasm.

On the 29th of June a copious venous hemorrhage took place from the ulcerated surface, on which I removed the emollient ca-

taplasm, and covered the ulcer with lint anointed with the unguentum basilicum flavum ph. mil. which I bound down closely with splints and the T bandage. The tumor and the ulcer now remained for some time without any perceptible change. A singular, penetrating, disagreeable odor was exhaled from the ulcer and spread itself so as to fill his chamber. The pus was thin and very ichorous. Large masses, formed of coagulated blood, continued to form. Lancinating pains were continually darting through the whole tumor; which, however, were assuaged by the light bleeding, by which at the same time, these masses were dissolved and carried off by suppuration; but they would soon begin to form anew. The whole tumor was irritable, and could scarcely bear the most gentle pressure. The volume of the tumor sometimes grew to a great size, often, indeed to the magnitude of a man's fist, yet it would be, in some measure, diminished by the hemorrhages. That the tumor was fungus hematodes, who could doubt?

On the 30th July, after severe lancinating pains of some days, venous hemorrhage occurred from the ulcer, I therefore covered the ulcer with agaric and soft lint; and upon that laid a piece of linen covered with ointment; I applied also a splint, which a T bandage, drawn gently, kept in situ. It is scarcely necessary to state, that the dressings were renewed daily, and often more frequently through the day, when they became saturated with blood.

On the 12th August a copious venous hemorrhage arose afresh from the surface of the ulcer. I have noticed before, that the patient labored under bleeding from the nose, and this frequently; yet he lost but little blood from these bleedings, as they would cease in a short time by using the acid mixture.

On the 14th August, a most violent hemorrhage of the nose occurred suddenly, by which he lost in a few hours at least xxxij ounces of blood. To stop this hemorrhage, I made use of cold applications to the head, particularly about the nose, sinapisms to the feet, and larger doses of the acid mixture, together with a very cold regimen. After this hemorrhage of the nose, there was great debility, with difficult hearing. Before the last attack of epistaxis, the ulcerating tumor had equalled in magnitude a man's fist, was very projecting and pained very much, and the adjacent parts had become much indurated; but after that the tumor lessened perceptibly every day; the pain decreased, the hard adjacent parts softened, and the bloody masses were carried away by suppuration; new ones ceased to arise. Before this last hemorrhage of the nostrils, the patient was exceedingly emaciated, but afterwards his appearance became perceptibly improved.

On the 23d of the same month, the whole condition of the patient was better. The deafness had nearly disappeared. The

ulcer was flat, dry, pale, and inodorous. Recourse was had again to the basilicon ointment.

On the 28th of the same month, the patient continued to improve. The pains had left him. The dry and pale condition of the ulcer had become moist, and suppurated kindly. The pus was laudable, and destitute of bloody masses. The whole ulcer had diminished to one half. I discontinued the acid mixture, and allowed the patient a flask of beer daily.

On the 5th September, the patient continued to improve.—The deafness was entirely gone. The ulcer now much less, was quite clean.

On the 8th, it was necessary to increase the quantity of food, on account of the improved state of the appetite.

On the 14th, the ulcer was perfectly consolidated. The cicatrix was firm and without pain. There were no vestiges of the former induration. I covered the cicatrix with soft lint, supporting it with adhesive plaister, and gave the patient permission to leave his bed.

25th. Without pain and without any apparent cause, a vesicle, filled with yellow serum, made its appearance in the middle of the cicatrix, which broke spontaneously, leaving a simple excoriation, that healed in a few days, by the use of lint and adhesive plaister.

On the 10th October, the patient left the hospital, and went home.

As the disease appeared to change for the better, after the free hemorrhage from the nose, would it not be justifiable to conclude, that the lower affection, which was the chief affection, was subdued and relieved by this hemorrhage. On this occasion I was rather a spectator than a surgeon: for the remedies exhibited by me (the emollient cataplasm, agaric, lint, gentle pressure and acid mixture) certainly were inadequate to contend with the disease; and it may seem that I impeded the endeavors of nature, since all my remedies were introduced to stop the hemorrhage, which was certainly salutary in this case. The cure of this patient, if I am not deceived, was the work of nature. *Fungus hematodes*, as far as I know, is accounted an incurable disease. Is it not, therefore, proper to imitate nature, and try the copious abstraction of blood, which occurred in this case spontaneously? [We would say most certainly, under suitable circumstances. This disease, however, often occurs in different parts, and in worse subjects for experiment than the case of doctor Svendsen—in the latter we would forbear, or proceed with extreme caution.]

ART. X. *Exposition of the New Medical Doctrines.* By J. M. A. GOUPIL, D. M. P. &c.

[THE American Journal of the Medical Sciences, contains a review of this work. In this review, much praise is very justly accorded to M. Broussais, and some of his cotemporaries, for the light which they have thrown upon what has, of late, been termed medical pathology. In looking over this article, our attention was particularly arrested by the following remarks upon hemorrhage. The reviewer says, that M. Goupil having given, "in a full and interesting dissertation, the facts and arguments from which the above observations are taken, our author proceeds to the consideration of hemorrhages and neuroses. It has been observed, that one effect of an irritation seated in the capillary vessels, is a disposition to pour out blood in a considerable quantity. Hence, an important class of diseases, the successful treatment of which, is peculiarly dependent on the correctness of the practitioner's theory. Physiological medicine has thrown much light on the theory of hemorrhages, and has consequently, much improved the treatment of those diseases. Hemorrhage was long supposed to proceed from a rupture of some large vessel of the diseased organ. Morgagni, and after him Bichat, ascertained that no rupture occurs, and that the blood is exhaled from the capillaries."

The above observations accord pretty much with the views of the present writer, who, in his surgical lectures, for the last four years, has treated of certain hemorrhages under the name of *hematic inflammation*. Believing that this view of the subject is new to most of the profession, and interesting to all, we have thought proper to give the following abstract of our lecture, on the subject before us. We have said "that as the term imparts, all cases of hematic inflammation are attended by hemorrhage, to more or less extent; and, indeed, by this peculiarity it is known. Several writers treat of hemorrhages under two heads, active and passive, (Cullen) and atonic and entonic, (Good). There can be very little doubt of the fact, that there is an increased action of the part affected, in all cases of hemorrhage. In many cases inflammatory action is too obvious to be doubted, and hence the terms active, or entonic hemorrhages. It is probable at least, that all hemorrhages are active, as regards their locality, but they may properly enough, by way of contradistinction, get the name of passive, because the general system is in a reduced state. And it is by raising the general system to balance the local action, that we arrest the bleeding. It is in the latter condi-

tion of the system, that the good effects which we sometimes obtain from mild stimulants and tonics, are derived.

[It will hardly be questioned, that in all cases of plethora or surcharge of the vessels, and this implies increased action of the arteries, and increased impetus of the blood, some inflammatory action is present. This opinion is supported by the fact, that, in almost all cases of hemorrhage, we obtain good effects from pretty free bleeding. In hemoptoe, dysentery, vomiting of blood, hemorrhage from the kidneys, we daily see the most beneficial effects from the abstraction of blood. A very superficial examination of this subject will convince us, that the surgeon has very little to do with this species of inflammation, but our course would be imperfect without filling up the arrangement which so obviously exists in nature; nevertheless, some cases of hematic inflammation do come directly before the surgeon. Doctor Good has restricted the term hemorrhage, to cases in which there "is a flux of blood from an organ without external violence." This arrangement will admit of epistaxis;—hemoptysis, or spitting of blood—hematuria, or blood urine—hematemesis, or vomiting of blood—hemorrhoids, or local bleeding from the anus; we may also include scurvy. We may be told, that, these are not cases of fever or inflammation. But many of these hemorrhages occur so often in fever, that there is reason for believing, that they are mostly, if not always, the result of febrile action, when considerable. In malignant fever, hemorrhages are common, in proportion as the disease is violent. We see in this disease bleeding from the gums, nostrils, the bowels, and no doubt, from the liver also—from the kidneys also; from small wounds, and sometimes from the mucous surfaces. There are cases of general fever with peculiar local action; what shall we call this but bloody or hematic inflammation? Our author, (doctor Goupil,) calls it an hemorrhagic irritation. Whatever may be the objections made to this view of the subject, what is, considering all cases of capillary hemorrhages as cases of inflammation—It must be admitted, that there are several affections to be noticed, which can be referred to no other head. Sir A. Cooper tells us, that when the bladder is inflamed in old men, it gives out blood from the vessels of its inner coat. We have twice attended a lady upwards of sixty, who passed considerable quantities of blood from the kidneys, (at least the region of those organs was painful, and the blood dark and grumous.) She had a tense pulse, and the quantity of blood mixed with the urine was considerable. In both instances, she was promptly relieved by bleeding frequently repeated—other antiphlogistic remedies were used, but being of a spare, delicate habit, in the first instance, ol. juniper, was used, in small doses, without advantage.

"In cases of pleurisy or peripneumony, we often have effusion of blood from the bronchial surfaces which, no doubt, comes from the exhalent arteries. Nothing has presented itself to us which more satisfactorily proves the correctness of our peculiar views of the capillaries, than a proper attention to hematic inflammation. Thus we find the exhalents of the mucous membranes giving out blood when affected with a peculiar modification of inflammation. In some cases of chlorosis, or depravity of habit in females, we see blotches of ecchymosis—and in scurvy, we see blood pouring out from every vessel, among the muscles, on the surfaces, &c.

"What we have stated is probably sufficient to show what we mean by hematic inflammation, but before closing my remarks, I wish to bring to notice a very remarkable case, which is well calculated to illustrate our views of this subject. Some years since I was called into consultation, with my friend doctor John P. Mackenzie, in the case of a negro man, belonging to Wm. Gibson, Esq.; I found the man in a state of the most agonizing suffering, from strangulated hernia. The scrotum was much distended, and the man greatly prostrated. All the usual remedies had been brought to the aid of the taxis, but the scrotum only grew larger in proportion to the efforts to reduce the hernia.—The vomiting, which for a period had annoyed him much, was now abated, but it was obvious that no time was to be lost, and that nothing but an operation afforded any hope of relief.

"We commenced the operation with the sanction of our friend, in the usual way. I exposed an unusual quantity of intestine in the scrotum. The intestines were greatly distended, and the vessels on the serous surface greatly injected with blood. We soon saw that it was too late, that the man was in articulo mortis; we therefore desisted till sometime after his death. We now divided the stricture, and, in addition to a large portion of intestine in the scrotum, which was filled with blood, we proceeded to draw out a portion from the abdomen; we found about four feet completely filled with blood; there could not have been less than two quarts. This was a genuine case of hematic inflammation. We have elsewhere endeavored to prove that there are, in all the living structures, *terminal vessels* or exhalents, which are closed at their ends by a membranous web, while we know there are thousands of capillary vessels which are continuous, and inosculate or anastomose in all directions. We believe that, in what has been called hemorrhagic irritation or what we call hematic inflammation, there is no lesion, nor are the continuous vessels directly concerned with the hemorrhage which takes place from the ends of the terminal vessels. Thus

hemorrhage from a wound, is a flow of blood from the continuous vessels—hemorrhage from the terminal vessels is the effect of peculiar excitement, and hence the meaning of the term hematic inflammation, is easily understood. Among cases of hematic inflammation may be noticed blood boils or the bloody abscess, stone-bruise of those who go barefooted, bloody cases of fungus hematomas, &c. In most cases of this disease, there is some deterioration of the blood—it sometimes is seen, however, in moderate force in more ordinary inflammations, as in inflammation of the mucous membranes of the bronchia, trachea, &c.; also, in the stomach, liver, and intestines. If this be a correct view of the subject it is important, that, in our attention to hemorrhagic diseases, we should carefully distinguish between hemorrhage by lesion, and hemorrhage by irritation or inflammatory action; if our pathology be thus corrected, we shall proceed in our curative intentions on a correct philosophy."

[Among a variety of curious and interesting cases which might be noticed from medical record, we think the following sufficiently interesting to deserve attention. The American Journal of the Medical Sciences, gives us a case reported by M. Chauffard, in the Transactions médicales, of "a girl aged twenty, small, sanguineous, menstruating irregularly, brain but little developed, mind weak, idle, and obstinate, addicted to contemplation—and who was persecuted by her parents for having abjured her religion." She was subject to hysteric attacks, during which there was a bloody sweat, which came from the cheeks and epigastrium in small drops, and so freely, as to stain her linen. The skin at those parts was red, and the vessels had the appearance of being much injected. After a continuance of three months, the disease yielded to "revulsive bleedings and revulsive topical applications." We have some misgivings whether we clearly understand the terms revulsive bleeding and revulsive topical applications, as here used, but, we have no doubt, a course of purgative treatment, regulated according to habit, would effect a revulsion of the exhalents, and thus cure such a disease. By habit, we mean idiosyncrasy, or aversion or preference for particular purgatives.

[*Hematemesis dependant upon disease of the liver.* The Transactions of an association of members of King and Queen's College, Ireland, contain a case, reported by Robert Law, A. M. M. B. of a woman aged 43 and married, who was received into an hospital four days after being affected with "bloody discharges from the bowels. On the day she was admitted, she vomited not less than a quart of blood," which was coagulated. The patient was pale, lips livid, expression anxious, lower extremities below natural heat, cold clammy perspiration; pulse frequent

and feeble; fluttering of the heart; voice faltering. The following were the prescriptions:—*R infusi rosæ ℥v; sulph. magn. ʒvj; and sulph. acid. dilut. ʒss; tinct. digitalis, gutt. xxx misce. sumat. unciam tertiis horis, vini rubri ℥vj.* To our apprehension, we seldom see a more extraordinary medley of discordant articles than were here combined. What were the salts for? What the digitalis? What the vitriolic acid? What the infusion of roses? We will not stop to answer these queries, but we would admonish young members in our ranks, to be careful how they give digitalis, where the body is covered by "*cold clammy sweat*," the "*pulse feeble and frequent, with fluttering of the heart, and faltering of the voice.*" To this most wonderful prescription was very properly added, jars of hot water to the feet, and the legs lapped in flannel.

"November 28th, (but the day of admission is not mentioned) vomited very little blood, but had frequent tarry discharges from the bowels; seemed quite exhausted; pulse very small and thready; surface of the body quite cold; countenance anxious; frequent sighing; all her symptoms bespoke dissolution." What a state of things is here for the use of digitalis! and salts! We should be extremely sorry to be understood to mean any disrespect—it is our object solely to awaken the inexperienced to what we deem bad practice, leaving every one to choose between us, and those whom we criticize, in no other spirit than that of honesty, and good will to every member of our fraternity. The sum total of our opinion of this case is, that it was of a chronic character and probably incurable: but we contend that the prescription was not suited to the symptoms present. So far as our experience goes, the superacetate of lead, and common table salt, are the most efficient remedies in cases of hemorrhage without lesion, or lesion without capillary vessels—they are to be combined with opium, or aided by bloodletting, or both, according to circumstances. But it is a fact more than once occurring to us, indeed, we may say, often that profuse bleedings are attended with mental disturbance, which influences the heart, and makes it beat rapidly, irregularly, and feebly—under this kind of sensorial debility, we would never exhibit digitalis. Common vinegar is also a very powerful agent, in arresting hemorrhage without lesion, or where there is lesion of capillaries only; it may be combined with opium, or rather alternated with it. The vinegar may be given in doses of half a wine glass diluted with water frequently repeated. It is not our intention however, to enter into the treatment in general, since in the treatment of hemorrhages, as in all other diseases, "*circumstances alter cases.*" In the case before us, we think that opium and the vegetable acids, would probably have been found suited to the symptoms with



external stimulation to the surface of the body, and particularly to the extremities."

[But to return to the history of the case, we are told that the wine which was given with the digitalis "did not seem to revive her," French brandy was therefore substituted. "Examination fifteen hours after death, body not in the least emaciated; lungs quite healthy; heart soft, flabby, and pale, containing a small quantity of fluid blood; a small quantity of serous fluid in the abdomen; the stomach contained about a pint of blood, and the intestines much of the tarry matter which was discharged by the bowels. The entire tract of the gastro-intestinal mucous membrane so far from exhibiting any unusual vascularity, seemed quite blanched."

"The liver presented an irregular tuberculated or granulated surface; was contracted in size; its anterior margin much less acute than natural. Sections of it exhibited small round bodies of various dimensions, separated by dense fibro-cellular septa; this fibro-cellular tissue seemed to be the proper cellular tissue of the organ increased in density, furnishing loculi or capsules to these roundish bodies, which are probably the acini in a state of hypertrophy; these bodies adhered loosely to their capsules, and could be easily detached from them; the consistence of this organ was greater than natural; its color a whitish grey." *The facts connected with this case are taken from the American Journal of the Medical Sciences.*

[In the continuance of our examination of the review of the work of M. Goupil, to be seen in the American Journal of the Medical Sciences, we have been led to notice the observations upon sympathy. We are told that much of this chapter is derived from M. Moncamp, on sympathies. "The most important deductions from this part of the chapter are, that the nerves are the true media of sympathy, and that, although disease develops sympathies between organs, which do not appear in health to be associated, yet it is probable, that the sympathies do exist in health, though less strongly than in a pathological condition. The sympathies are modified by many circumstances. Those organs which are important, as the stomach, heart and brain, throw the whole system into commotion, when diseased; while ligaments, the cellular tissue, and others, produce much less disorder. The intensity of the irritation will obviously have great influence. The constitution of the individual also, has a great effect; the sympathies between organs being far less intimate in robust and lymphatic constitutions than in those of a delicate and irritable habit. In such cases diseases will produce different effects, and demand different treatment. The age, sex, and climate, as well as the cause which produces the irritation, are so

many modifiers of sympathetic effects. Those organs, the sympathies of which are most extensive, receive the greatest number of impressions from other organs. It is from this fact, that the gastro-intestinal mucous membrane becomes implicated in all extensive irritations. The irritations which arise sympathetically, do not differ from those which are idiopathic; meningitis produced by gastro-enteritis, and meningitis from a blow, not differing. The sympathetic irritation may rise above the original one and form the prominent feature of the disease. A sympathetic irritation may be of a different kind from that which produced it. Thus, hemorrhagic irritation of one organ may proceed from inflammation of another; and neuralgia may produce sympathetic gastritis. An irritation may give rise to another of the same kind; as in cancer, or tubercle; and this, according to Broussais, constitutes diathesis. It is important, that the practitioner be acquainted with the sympathies in order to avoid mistaking sympathetic for idiopathic diseases. In speaking of sympathy, as connected with therapeutics, M. Moncamp observes, that our remedies should be directed to the primary disease. Thus, we sometimes see an erysipelas suppressed in one place, re-appear in another; but if we remove the gastric irritation, of which the former is the effect, we effectually cure the cutaneous disease. M. Broussais frequently cures inflammation of the joints, by applying leeches to the epigastrium. Leeches to the joint itself would have failed, by leaving gastritis; and the disease would have been reproduced. A local inflammation produces fever by irritating the stomach, heart, and brain; and as the sympathies of the stomach are more extensive and intimate than those of the heart, we cannot have fever, without gastritis, or at least gastric irritation. In common fevers the irritation of the heart and brain does not rise to inflammation; but when gastro-enteritis is very violent, the brain and heart are often inflamed."

[We presume that from the time of the interesting views, upon sympathy, by Mr. John Hunter, the opinion has been at least general, that all sympathies operate through the "media of the nerves." But there are cases where it is hardly possible to admit the French doctrine, that where there are pathological sympathies between organs, that, therefore, "it is probable, that sympathies do exist in health" between such organs, that is, upon any of the received theories of animal life, seeing all physiologists ascribe all action to the nervous system, as seen in the nerves derived from the brain, spine, and ganglia. Doctor Darwin seems to have had peculiar views—we do not deem it necessary, at present, to advert to his opinion, more than merely to mention the idea which he suggests, of the sensorial organs, &c.]

ing up the entire man, so as to partake in its formation of the form of the whole individual; through all which, he imagines the existence of a sensorial power; and necessarily sensorial organs. Some of the sympathies noticed by Mr. John Hunter seem to be overlooked by the French pathologists—thus, for instance, Mr. Hunter notices the fact, “that a testicle shall be inflamed, and the scrotum not in the least affected. The scrotum shall inflame, and even slough off without the testicle being the least affected.”

Something of the same kind has been casually mentioned by Baron Boyer, when he tells in some part of his surgery, that an artery is sometimes seen beating in an abscess surrounded by pus, and yet it continues unaffected; and although stripped of its cellular envelope it granulates, and eventually adheres to the surrounding parts; and doctor Jameson has noticed a similar fact in relation to the urethra, in one of his publications in the late Philadelphia Recorder. The perineum may inflame, slough, and completely insolate the urethral tube, and the tube itself shall not suffer.

Some physiologists have adverted to a molecular sensorial organization, but so far as we recollect no particular application has been made of such an organization, in the various attempts at explaining the animal economy. Some observations have been published by doctor Jameson, in the first volume of this Journal, page 367, on irritation, in which an attempt was made to locate the several modifications of the sensorium—among which it is supposed that the plastic operations in general, are affected through a molecular organization—this opinion is founded on the fact, that some of the lower orders of animals have no other sensorial organs, and in the more perfect as man, the germ advances sometime before there is any other sensorial organs, and indeed, the brain itself is but a mass of molecules.

We do not mean to go into any general explanation of these views, but shall conclude this branch of our subject by giving a very brief abstract of doctor Jameson’s arrangement. It is supposed, that with some qualification, the ancient notions respecting a *vis plastica*, *vis a tergo*, &c. are correct—thus it has been supposed that the *vis plastica* exists in the germ, and continues during life to regulate all the assimilating operations—the *vis a tergo* regulates the action of the heart and arteries; that is, there is a subtle matter emanating from the brain, as the first link in the chain of animal life, this is associated with the organization of the assimilating apparatus, so as to keep up their action; and with the heart and arteries so as to give to them the power of perpetuating their action, &c. All we wish however to maintain at present is, that these modifications of animal power are dependent upon, and made operative through a molecular

medulla—and in this way we would explain those obscure sympathies noticed by Broussais and others, that is, we are told that we have reason, when we see pathological sympathies existing, that they most likely exist physiologically also. If we see the joints sympathizing with an irritation of the stomach, as we are told by M. Broussais, we would say the joints, having few or no nerves, are chiefly supplied with sensation, &c. by the molecular medulla interstitially placed, in the structure of membranes, cartilages, ligaments; and the stomach having also its molecules, why may they not sympathize? The strong sympathy which exists between the stomach and the skin was well known to doctor Sydenham.

It is a curious fact, that Mr. John Hunter had the same views of the sympathetic nature of hectic fever, that M. Broussais holds respecting fever in general, these writers differing only as to circumstances which necessarily alter cases; hectic being a different thing from common fever.

Mr. J. Hunter tells us in the introduction to his observations on "the blood, and inflammation," that "hectic fever is also an universal sympathy, attended with a local disease, which the constitution is not able to overcome." M. Broussais maintains the opinion that an irritation or inflammation of the stomach or intestines gives rise to general fever: what is the difference then, of the opinion of those two distinguished pathologists? We do not wish to be understood to say, that Mr. Hunter anticipated M. Broussais, in this view of sympathy as connected with fever. The former has not made any particular practical application of this opinion of his, nor has his successors done much in that way; whereas Broussais has founded all his indications of cure, on his views of sympathy between the stomach, and the general system.

We shall have occasion to enter more fully into the investigation of this subject, in some reflections which we intend to offer upon fever, but before we close this article, we would merely notice the fact, that, in ascribing hectic fever to some local affection, we can never be mistaken, since the local derangement is, perhaps, always but too clearly characterized, before the general system sympathizes; but in cases of ordinary fever, the only proof we have of a local irritation, which is supposed to give rise to fever, is after the whole phenomena of the disease have terminated in death.]

ART. XI. *Extraordinary cure of a Wounded Intestine.*

THIS case is to be seen in the first volume of doctor Coxe's Museum, and said to be reported by one of the physicians or surgeons to the Radcliffe infirmary, at Oxford, England. In the year 1775, a young man was stabbed in the left side of the belly with a knife. "The wound was between two and three inches in length, running from the left os ilium obliquely upwards towards the navel. I found him lying on the floor weltering in his blood, with a large portion of his intestines forced through the wound."

We are told that the stomach was distended with food, and gave rise to an extraordinary protrusion of the bowels—the hemorrhage was soon restrained, by the pressure of the protruding intestines, which were much distended with air. There were no indications of any wound of the intestines except the patient's pulse was extremely low, quick and intermitting, the skin cold and clammy, great anxiety, and pain about the præcordia. There was a tingling and numbness of the leg on the injured side—faintness and inability to stand on the left leg. The surgeon could not replace the bowels till he sent for professional assistance, meantime, the parts were kept warm with a flannel, wrung out of port wine and warm water. [Why not prefer the warm water alone.] Such was the tendency to protrusion of the bowels, that it was necessary to place the patient over the shoulder of a bye stander, with his head down, &c. It was found necessary to enlarge the wound, before the reduction could be effected. By extending the wound about two inches, reduction was easily effected—this done, sutures were applied, taking care to leave a little opening, at the lower angle of the wound, for the escape of matter, &c.

The patient was confined to gruel, panada, or sago, with barley water. The first night was spent in great restlessness—in the morning he was extremely low, skin cold and clammy, frequent chills and oppressive tightness of his belly. The belly was long fomented with water moderately warmed. This evening 27th an injection was given and brought away a very copious discharge of feces, together with a good deal of blood. It was now concluded by the surgeon, that there was a wound of the intestines. This in general may be relied on, but not always—we have seen several cases of injuries, and strangulations of the bowels, where considerable quantities of blood were present in the intestines without lesion. In this case, however, subsequent circumstances proved the fact, of an intestinal wound.

The treatment throughout consisted of the usual antiphlogistic plan of treatment. The symptoms were sometimes alarming,

and blood continued for a few days to appear in small quantity in the fecal discharges.

On the 30th, fourth day, "the wound had discharged very much, and it was extremely offensive." At two o'clock this afternoon he had violent vomiting. The discharge from the wound was prodigious—most of the stitches gave way, and the interior of the abdomen could be seen.

October 1st, the patient appeared cheerful and eat well, and there was a general amendment. But when the wound was opened, it had assumed almost a round form, exposing the small intestines in their circumvolutions. The wound was filled with soft lint, and a suitable bandage applied.

"In a few days, the slough from the edges of the abdominal muscles, separated, and left the sore so largely open, that I could easily discover from whence the feces made their exit, which was from the middle of that part of the colon that lies between the left kidney, to which it is attached, and the upper part of the sacrum, where it empties itself into, and forms the rectum.

"It was exceedingly satisfactory and pleasing to observe, from day to day, the progress nature made in renovating this formidable breach, and her means of accomplishing it; for, after a little time the intestines looked florid, and began to pollulate, throwing up small grains of flesh from every point. These granulations, daily increasing, united with each other, and after filling up the intervals between the circumvolutions of the bowels, became one uniform surface; which surface uniting with the raw edges of the integuments, they both adhered together, and became one continued sore. As the wound incarnated, the fecal discharge lessened daily, and about the twenty-second, or third day entirely ceased. I now allowed him chicken broth, milk porridge, calves feet jelly, &c. The wound was dressed with dry lint, and was healed in seven weeks."

The above is one of those extraordinary cases which now and then present themselves, and in which nature sets forth her wonderful restorative or conservative powers; but, our own experience goes to confirm the opinion, held by the earlier moderns, that wounds of the abdomen are very dangerous, and, consequently, notwithstanding these occasional wonders, we must carefully bear in mind, in all cases, that extreme danger attends wounds of the peritoneum, or intestines, whether they be accidental or surgical. This case, with a majority on record, serve to support the opinion of Mr. John Bell, that, we must not be too curious nor officious, in wounds of the intestines, observing, as a rule of practice, never to attempt the use of sutures, unless the nature of the case shall leave no alternative; and such cases we believe are more extremely rare, since notwithstanding the

absolute loss of a portion of intestine, we are still to attempt the restoration of the natural canal; this may sometimes, possibly always, be best done by leaving the ends of the intestine slightly stitched to the wound, and depend upon making a continuous passage by the method practised by doctor Physick, and others; that is, by bruising the adjoining sides of the upper and lower portion of the intestine, so as to cause a hole by sloughing, and thus procure a continuous passage. Upon the whole, we think, that where the wound is transverse, whether it extend partially or entirely through the intestine, it may be treated by suture, by an experienced and dexterous surgeon—provided always, that, we carefully bear in mind, that, in order to obtain a reunion, we must apply similar parts, that is, the sutures must be so placed, as to bring into contact the outer surface of both ends of the intestine. Where this succeeds, it will save much disagreeable attention to the external wound, caused by the feces passing through it.

It is not our intention to enter into the subject before us generally, but rather to call attention to a few extraordinary cases, which serve to show the criminality of neglect, under almost any circumstances; since notwithstanding the great danger attending these cases, we are sometimes surprised by the recovery of patients, where it could scarcely be considered possible.—Among these cases the book now before us, doctor Coxes' Museum, contains a case, from the London Philosophical Transactions, of a boy who had his bowels protruded, and fifty-seven inches cut off, by a cart, and, who nevertheless recovered good health, in six or seven months. The records of the Baltimore Dispensary contain an account of a child affected with a deplorable prolapsus ani, and who, playing in the street, while in the act of stooping or sitting with the bowel protruded, was attacked by a sow, and suffered the violence of having a portion torn off—notwithstanding this accident apparently so dangerous, the child recovered and was cured of the prolapsus.

Some few years since, a man was put upon trial, in the Baltimore county criminal court, for stabbing another man in the abdomen, so as to cause a considerable protrusion of the intestines, but it appeared in evidence, that these were not wounded. The patient, being furiously mad from intoxication, resisted all the efforts of two respectable young physicians to replace the bowels; and in consequence of the delay and exposure of the bowels the patient died. Now it is clear, that however dangerous may be the character of such wounds, this patient would have had an infinitely better chance of recovery, had he been tied and bled to syncope. In this way we should put into use the most efficient means for the prevention of inflammation, and

at once remove all resistance on the part of a mad patient; and, yet, it was evident that this expedient, apparently so simple, was never thought of by the physicians, who had charge of the case. What has happened once may happen again, we therefore, deem this case important, as it will tend to prevent similar deplorable consequences, that is rendering a case necessarily mortal which is susceptible of cure, by means so easily applied, that the merest tyro can easily apply it, to wit: tie, or cause a man to be tied, and bled till he is made to behave himself; which should be done without delay, and the bowels replaced.

It can never be desirable to have a large wound in the abdominal walls, we would, therefore, decidedly object to the act of enlarging the wound, "about two inches." We have always observed, that a very small extension of a wound will enable us to reduce a strangulated bowel, wherever it may be confined; three-fourths of an inch is probably, as great an extent as will ever be called for, provided we manage the reduction properly; in many cases the division of a few fibres is sufficient. We have had occasion, in a few instances of mortal gun-shot wounds to reduce-strangulated bowels, and have always found very slight extension of the wound succeed.

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ART. XII. *Case of Fracture of the Skull, with laceration of the Dura Mater, and extensive injury of the Brain, in which the Trephine was successfully used by doctor S. ANNAN; communicated, by J. HOPKINS, M. D. of Elkridge Landing, Maryland.*

ALEXANDER POCKOCK, aged 17 years, received, on the 6th of June last, a blow on the head from a long handled iron shovel. He was knocked down and stunned by the blow, but in a short time recovered his senses and power of muscular motion. The thin edge of the shovel made a wound in the scalp about three inches long; commencing near the anterior edge of the left parietal bone, and running parallel to, and about one inch and an half from the sagittal suture. The hemorrhage was considerable; probably to the amount of two pounds. The hair had been cut away and pulled out of the wound, and it was hid and bound up before I saw him. There being no stupor, nor any apparent symptoms of the brain having sustained injury, and the bleeding having stopped, I gave the injury only a slight examination, and treated it as a simple wound of the scalp. His right



arm was somewhat paralyzed; but on directing my attention to it, I learned that he had also been struck with the shovel on the breast; the pectoral muscle was considerably bruised and swollen; and I readily attributed the want of power in the arm to that cause.

The arterial action was regular and moderate; but as the patient complained a good deal of headach, and the tongue becoming furred, he was purged freely and constantly, by alternate doses of calomel, calomel and gamboge, cal. and tart. antimon. and epsom salts; and his diet carefully adapted to this course. He seemed to improve gradually and surely; the wound began to assume the healthy granulating process; after about a week he occupied the bed but partially through the day; and by the 18th of the month, he could move about so freely, and with so little uncomfortable feeling, that I concluded there would be little or no further necessity for my services. He himself, indeed, felt so confident of his well doing, that on the day just mentioned, he indulged in a large share of exercise; he walked out from home to a considerable distance; was exposed for several hours to the ardent rays of the sun; and in the evening, went to a neighboring grog shop, where he was subjected for an hour or two, to those exciting circumstances which generally occur, whenever a set of profligates congregate in those haunts of dissipation. The consequences of this imprudence were, the occurrence that night, of high febrile excitement, intense headach, and delirium. He was bled from the arm largely, and purgatives administered, so as to produce large and free effects. By which means these urgent symptoms soon yielded; but they left him with the whole right side completely paralyzed, a loss of articulation, and considerable coma. Although the power of speech was limited almost entirely to the monosyllables, "yes" and "no," yet deglutition was scarcely at all affected.

These last symptoms continuing for several days, with a manifest increase of the coma, I was led to conclude that the brain must now be essentially concerned in their production, either from extravasation and coagula, or accumulation of pus between the cranium and dura mater, making compression on the brain. I therefore, on the 25th of the month, and 19 days after the injury was received, solicited my friend, doctor Annan, to ride out and see the case. A few minutes consultation was sufficient to determine on the propriety of using the trephine, and the doctor proceeded forthwith to operate.

It was quickly perceived that the edge of the shovel had not only cut through the scalp, but had also penetrated the cranium, making a fissure therein at least two inches long; had scaled off considerable portions of the inner table; and forced the frag-

ments through the dura mater, into the substance of the brain. To extract these pieces, it was necessary to apply the trephine twice.

Four or five pieces, one of which, was more than an inch long by half an inch wide, were buried in the cerebral mass; and when taken out, were covered all over with the material of the brain. The perpendicular depth to which one of the pieces penetrated into the brain, could not have been less than a full inch. The number extracted was twelve; three of them an inch in length, and half an inch wide; and seven of the remainder, from three quarters to an half inch in length. A large cavity had been formed in the substance of the brain, into which the finger was freely passed to search out the fragments. The ragged edges of the dura mater were of a dark purple hue.

After the operation, the patient lay for some days in a very doubtful condition. The coma seemed to increase, and the quantity of nourishment which he took, appeared not sufficient to perpetuate existence. After the eighth day, however, there were some small evidences of amendment. The paralysed side began to acquire some portion of sensibility; the will to have a little power over the leg; and some slight command also of the arm. His improvement since that time has been indeed slow. But although it has been impeded by the occurrence of several paroxysms of intermittent fever, it has nevertheless been progressive and sure. The wound in the scalp has perfectly and beautifully healed; and he has so far recovered the use of his leg as to walk about without any assistance. The use of the arm, and his speech, are not yet entirely restored; but are evidently improving.

August 8th, 1831.

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ART. XII. *Remarks on Fractures of the Skull.* By SAMUEL ANNAN, M. D.

SIR Astley Cooper informs us, according to Mr. Tyrrell, "that a compound fracture of the skull is followed very generally by inflammation of the brain; and that it is of little use to trephine, when inflammation is once produced. It might be thought, he says, that it would be time enough to perform this operation when inflammation had appeared; but this is not the case; for if

the inflammation comes on, the patient will generally die, whether you trephine or not, and you will not arrest its fatal progress by trephining, but the operation will add to the danger of increasing the inflammation. When inflammation of the dura mater and membranes of the brain has been excited by the depression of the bone, you scarcely retard the progress to death by performing the operation."

In all his remarks upon *compound* fracture of the skull, with depression of the bone, Sir A. Cooper has one principal object in view, viz. to inculcate the necessity of an immediate operation, for the removal of the depressed portions of bone; and thus by taking away a source of perpetual irritation, diminish the risk of inflammation.

It is obvious, that spiculæ of bone, piercing the membranes and entering the substance of the brain, if suffered to remain, must produce inflammation. The external surface of the dura mater, does not readily inflame; but the reverse is true of the arachnoid coat. It is a serous membrane, and takes on inflammatory action with great facility; and soon communicates it to the pia mater and cerebral mass. The external surface of the dura mater, however, has a peculiarity well deserving of notice. When it does become inflamed, being destitute of sensibility, it does not exhibit the usual symptoms; and will go on to suppurate without pain. Owing to this, we frequently have separation from the skull, and formation of pus, before we are aware of the dangerous situation of the patient; and by this time, the inflammation has extended to the arachnoid coat and substance of the brain; and nothing having been done to arrest its progress, it has acquired such intensity, that for the most part, all our remedies are unavailing.

These considerations induce me to modify the opinion of Sir A. Cooper, in relation to *simple* fracture of the skull, that is, fracture unaccompanied by a wound of the scalp. If there is reason to believe, from examination, and the shape and character of the instrument, which inflicted the injury, that the fracture is at all comminuted, and that spiculæ have pierced the dura mater, I should think the risk of fatal inflammation, much greater, than from exposing the membranes to the air, by an operation for the elevation or extraction of the depressed portions. I do not regard the incision through the scalp, as having any great tendency to aggravate the symptoms, or produce inflammation of the *dura mater*; and the question is simply, whether exposing this membrane to the irritation of the air, and the particles of matter it contains, to which it is unaccustomed, is as likely to cause fatal inflammation, as the irritation of spiculæ of bone penetrating its substance; and possibly passing through to the parts within.

I think it is not; and as we know, that when inflammation of the dura mater is once established, the danger is imminent; and according to Sir A. Cooper, no mean authority, although not infallible, the operation at this time, will not generally arrest the progress to a fatal termination, I should consider it right to operate, although no symptoms of compression of the brain are present.

On the other hand, if I have reason to believe, that there is no comminution, and that only one or two flat pieces are depressed, there being no wound of the scalp, nor any symptoms of compression of the brain, I would trust to depletion.

Sir A. Cooper is not warranted by the records of surgery, in saying, "if the fracture be simple, that is, without wound of the scalp, and there be no symptom of injury to the brain, it would be wrong to make an incision into the part, and perform the operation of trephining; for by making such an incision, you add greatly to the danger of the patient, as you make what was before a simple, a compound fracture, and consequently greatly increase the danger of inflammation, which rarely follows fracture with depression, where the fracture is simple; but is a very frequent consequence of a compound fracture, which is produced by making an incision in the scalp."

Now, on the contrary, it strikes me, that the cases are exceedingly few, in which inflammation of the membranes and brain, could be distinctly traced to this operation. Mr. Pott, and many others since his day, have used the trephine freely; and it cannot be shown, that the incision through the scalp, and elevation or removal of the depressed bone, "increased the danger of inflammation;" but we have many cases of inflammation, suppuration and death, where the irritation of projecting spiculæ has been allowed to continue. If inflammation has succeeded an incision through the scalp, in cases of simple fracture with depression, it does not necessarily follow, that the inflammation was caused by the incision; or that it would not have appeared, if no incision had been made. "*Post hoc, ergo propter hoc*," is not sound logic, in medicine and surgery, whatever it may be in physics. It is quite possible, that the contusion of the dura mater, would have produced inflammation at any rate; and then the question recurs, whether this is as likely to happen, after the elevation, or extraction of the depressed bone.

It is not easy to perceive how we are to distinguish between that inflammation which is the consequence of the contusion of the membranes and brain, and that which may be supposed to proceed from the incision of the scalp. A comparison of cases will not afford satisfactory information; because we cannot ascertain certainly the relative effects of the two causes of inflam-

mation in any given case. I think, therefore, that safety is on the side of the operation, where we have reason to believe the liability to inflammation is increased by projecting spiculae.

Doctor Hopkins's case is one of great interest, from the length of time between the reception of the injury and the removal of the depressed fragments of bone. In almost all the cases of extensive wound of the brain, the symptoms have been such as to demand an immediate operation; and one of the principal sources of danger is thus taken away; but in this case nineteen days intervened; and notwithstanding there was inflammation, suppuration, and appearance of gangrene, accompanied by the most alarming prostration, paralysis and coma, the patient recovered. It is directly subversive of Sir A. Cooper's doctrine, "that when inflammation of the dura mater and membranes of the brain, has been excited by the depression of the bone, you scarcely retard the progress to death by performing the operation."

This case is also interesting as a fair specimen of the recuperative powers of the *vis medicatrix naturæ*. After the operation, the doctor had nothing to do but prohibit the application, or exhibition of any thing calculated to injure. Bread and water poultice was applied to the wound; and renewed two or three times a day. The patient having been previously bled very freely to subdue inflammation; having lost a considerable quantity of blood during the operation; and being greatly debilitated, there was no indication for farther depletion. Tonics and stimulants could not be administered, because, instead of removing the debility, they would aggravate the inflammation, augment the suppuration, and consequently increase the weakness and danger of the patient. All that could be done, then, was to rely upon nature, and not interfere with her proceedings. The great source of irritation having been removed, she was found sufficient to meet the remaining exigencies of the case.

The medical treatment of extensive wounds from accidents or operations, is not I suspect as fully understood as it ought to be. I have seen a case of bad compound fracture of both bones of the leg, very well managed as regards laying the limb in the semi-flexed position on its side, and applying cold lotions; but when violent delirium came on, requiring the energetic use of the lancet, nothing was done, but administer some febrifuge mixture and a cathartic; and when the patient became furious, elevating and tossing his leg in the air, the foot of course hanging down and swinging about, while the tibia and fibula projected two or three inches, the straight jacket was applied, and the leg bound down upon the bed. The man died. Here was a transfer of the irritation to the brain, and the patient should

have been treated for inflammation of that organ, without reference to the injury of the leg.

On the other hand, some surgeons bleed in order to prevent inflammation. The advantages of this practice are, to say the least, problematical. A certain amount of excitement is necessary to carry on the restorative process. It would appear as if nature had to make an extraordinary effort to accomplish her object, and in proportion as the action is below this standard, in the same proportion, will recovery be slow and uncertain. This being true, and as we also know, how difficult it is to ascertain certainly, whether the constitutional powers of any individual will develop excitement above or below the proper degree, it is unquestionably most judicious to wait for symptoms; and when those appear which indicate excessive action, employ the appropriate remedy.

If we could always discover with absolute precision, where the febrile excitement will run too high, it would be right to moderate or destroy this tendency, by the abstraction of blood. In such cases, I should not apprehend any increase of irritability from this practice. Irritability is augmented by bleeding, only in those cases, where it is not the proper remedy; where the action is too low instead of being too high; where the blood in quantity and quality, relative to the sensibility of the heart to its stimulus, has not the power to produce a full and perfect contraction of that organ; the consequence of which is, that the heart does not entirely empty itself. Hence the pulse becomes more frequent, smaller, and feebler. In the opposite condition of the system, however, bleeding diminishes the frequency and tension; or the pulse becomes slower and softer.

These thoughts I regard as arising naturally out of the subject I have been discussing. There cannot be any diversity of sentiment respecting the value of correct views of the point to which they refer.

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ART. XIII. *Observations on Scarlatina, with a view of noticing the striking resemblance in the disease, as seen at Pittsburg, and Baltimore, in 1830.*

SCARLATINA ANGINOSA, has been noticed by doctor Callaghan, president of the Pittsburg Medical Society: this gentleman has  
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given an account of this disease as it prevailed in that city, in 1630. In this account, published in the American Journal of the Medical Sciences, we recognise a wonderful resemblance to the disease as it prevailed in Baltimore, at least, such is the case, so far as we saw the disease, that is, a little of it from late in the spring, till the middle of July, when we sailed for Europe; and from the first week of December, also a good deal of the disease throughout the winter, and so far as we obtained information from our friends, after our return, there was a great similarity during the summer and fall months, to what we had seen.

We do not intend following this writer, in his symptomatology, but would remark further, that, we entirely accord in his opinion, of the non-contagiousness of the disease. In the curative measures, however, we do not entirely agree with our author. We know from report, that it (the practice of doctor Callaghan) was the practice adopted by some in this city, who had not much reason to console themselves with the result; the disease having been very mortal during the summer and fall months. The remedies chiefly relied on, by doctor Callaghan, were, in the first stages of the disease, "the detraction of blood, either generally or locally, or both, the evacuation of the primæ viæ by emetics and purgatives, with the cold affusion, cold bath, or sponging the surface of the body with cold water and acetic acid." When the utility of general bleeding was doubtful, "the application of leeches to the head and neck was of signal service." The hair was closely cut in some cases, and the head "kept covered with a single fold of linen, wet with acetic acid, and ice cold water." Locally stimulant liniments, of turpentine, &c. were used, the inhalation of warm vinegar fumes, &c.

There was still a good deal of scarlatina, and considerable mortality after our return from Europe, but we were led by report, to believe that the disease had abated in its violence; and was much less prevalent, for want, probably, of an equal number of subjects. Many of the first cases we saw, were mild, notwithstanding that there was a very unusual amount of sordes on the tongue, mostly of a yellowish color. This led us to adopt a mild treatment. We believe that there is no circumstance connected with epidemics, more evident, than the fact, that each one has a predominating characteristic, that is, to a certain extent, a sameness which is to be recognized in various ways—as its more or less violence, in its general character—a greater tendency to involve more especially, some one or more of the vital organs; or, on the other hand, diffuse itself through some or all of the least sensitive organs, tissues, or structures.

Influenced by this opinion, and the fact of the mildness of the general character of the disease, we were led to adopt a very

very mild plan of treatment. In most cases we trusted to free depletion with a little castor oil, or magnesia. And we were partial to the free use of weak lemonade: made thus—about a table spoonful of wheat flour was tied in a piece of linen rag, and put into a pitcher—over this was poured a quart of boiling water—when cold, this very thin gruel was mixed with a little sugar and lemon acid. This was drunk freely; few children refused to drink it as freely as was desirable. In almost every case we gave one or two emetic doses of ipecacuanha—sometimes before, often after, a dose of oil—we then kept the bowels open by the use of oil, magnesia, a little salts, or jalap, with, or without cream tartar. Calomel was very seldom given; we never bled children. Out of several dozen treated in the mildest manner we lost but two, both of whom died in relapses from cold. But as we design writing more fully on this subject, in another department of this work, we shall close our remarks by saying, that our treatment was extremely mild, often little more than good nursing, although the patients were several days confined to bed—we were well pleased with our success, and believe, that, to say the least, there were very few cases which required, or admitted of any thing like free depletion.

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**ART. XIV.** *Observations on Consumption, with a view of showing the salutary nature of the climate of Alabama to consumptive persons.*

THE American Journal of the Medical Sciences, for May, 1831, contains an account of the climate of Alabama, by doctor Heustis. The topography of this state presents a wonderful assemblage of different soils, from the alluvial to the hilly lands; still the climate is mild. We are told by doctor Heustis, that "persons affected with phthisis pulmonalis, or a great predisposition to that complaint, experience very decided benefit from a residence in this climate. Comparatively very few deaths take place from this disorder, probably not more than one in two hundred of all the fatal cases from every disease." The salutary influence of this climate in phthisical invalids, I am persuaded, requires only to be known to be taken advantage of, and duly appreciated." This is a circumstance most unquestionably of the first magnitude, and ought to be extensively circulated, by every physician



who can feel commiseration for the daily ravages of consumption, in most parts of this country.

As might have been foreseen, the alluvial grounds in this warm climate, are now and then visited by dreadful bilious epidemics. "For the three first years, (says doctor H.) after my arrival in this state, in 1821, 1822, and 1823, the country was dreadfully sickly, and the mortality great and appalling, more especially near the rivers." Since then, it appears there has not been so great a waste of human life. Invalids visiting this state on account of a consumptive tendency, must have an eye to the season, and to the location, lest in escaping from consumption, they fall victims to bilious fever in going to Alabama.

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**ART. XV.** *Hepatic and splenic derangement, simulating organic disease of the heart, or aneurism of the aorta.*

DOCTOR VAUGHAN, of Wilmington, relates the case of a lady, in the American Journal of the Medical Sciences, which two gentlemen, who were in attendance, pronounced to be an affection of the heart, or aorta; but which turned out to be a disease of the chylopoietic viscera. It had been preceded by bilious fever, some weeks before. There were a most "urgent sense of suffocation, violent palpitation of, and a most distressing feeling of weight about the heart, with acute pain." Venesection afforded some relief of feeling, but the palpitation and pain in the region of the heart continued. It was now pronounced "an organic affection of the heart, or an aneurism at the arch of the aorta."

When our author was called in, her situation was "truly deplorable, the palpitation of the heart was so violent as to throw up the bed clothes, (at every diastole,) so as to be distinctly seen across a large room!"—"After a minute inquiry into her case, and a most careful examination of the thorax, both by mediate and immediate auscultation, I was induced to believe that there was really no primary or permanent disease of either heart or aorta." Further inquiry led to the discovery of hepatic tenderness, debility of stomach, and enlargement of the spleen. The blue pill, &c. were ordered, and gradually restored the digestive organs to a healthy state; and as this advanced, the palpitation, &c. abated; and finally entirely ceased. This is a case showing in a strong light the importance of the stethoscope, but since there was violent palpitation, none but an experienced ear could distinguish be-

tween palpitation from nervous irritation, and organic derangement.

We are reminded here of a number of cases reported by Morgagni, in which there were the strongest signs of organic disease of the heart or aorta, and which on dissection, were found to be unattended with structural derangement; and, vice versa, some cases when, notwithstanding the symptoms were obscure and slight, much organic derangement was seen post mortem. We have seen several similar cases.

We have also seen a few cases, one we recollect more particularly, in the person of a frail old man, a school master, of sedentary habits, who had a most violent palpitation or beating, reaching down to the scrobiculus cordis, and which after some months yielded to a course of light purging, antimonials, followed by a course of chalybeates. This affection was owing to some kind of a back stroke of the heart upon the blood—some imperfect closure of the right auricle, by which the blood was suffered to flow more or less backwards, and thus give a strong pulsation to the blood in the vena cava ascendens. The pulsation could be distinctly felt at the pit of the breast.

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ART. XVI. *On Gangrenous sore mouth, with a view of showing the good effects of a solution of corrosive sublimate.*

THIS subject has been noticed by Jesse Young, M. D. of Chester county, Penn. This disease, says our author, has been treated of under the humid gangrene of the lips, gangrenous erosion of the cheek, names of cancrum oris, gangrenæ oris, gangrenous sore mouth, &c." It is said to be a disease resembling the effects of mercury"—and that scarcely any remedy has been found useful except the sulphas cupri. "This is said to have been particularly efficacious." Doctor Young has found a strong solution of sublimate highly beneficial. It is prepared by dissolving eight grains of dento-chloride of mercury, in an ounce of water. We are also informed that doctor G. Humphreys has long been in the habit of using the sublimate, in the form of four to six grains, dissolved in an ounce of tincture of myrrh, reducing the strength as the disease abates. We have usually seen this disease more rapid in its course, than appears to have been met with by our author. Indeed, most of the cases which we have seen, were in children laboring under protracted bilious fever, and the disease had ad-

vanced to actual sphacelation before we saw it. Such cases have mostly ended fatally, or committed dreadful ravages on the cheek. When the disease has penetrated through the cheek, we have relied on the blistering ointment—with which the sore was dressed some days. In this way we once arrested the disease, and saved life, but the patient was much deformed by the destruction of the cheek which took place, and which, much to our injury, was ascribed erroneously to the use of mercury.

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ART. XVII. *Observations on Cancer, with a case showing the good effects of a diet of Indian corn.*

EVERY surgeon, who has had opportunity for the necessary observation, must be painfully sensible of the ravages made upon the human family, by cancer, and, most of all, on our fair sisterhood. For ourselves, we must acknowledge, that amid the few favorable cases we have now and then met with, there has more frequently been a return of cancer after operations, performed under the most favorable circumstances. Indeed, there are many cases where there exists a cancerous diathesis, or, at least, a morbid condition, which is evidently associated with the local affection, and which leads to the destruction of life, sometimes with and sometimes without any return of the local disease.—This morbid condition is occasionally to be seen, in general debility, pains resembling rheumatism and gout; sometimes in fragility of the bones; in a few cases of the latter, we have known the main bones of the leg or arm to break, under ordinary exercise, as in the act of getting out of bed. Such being the fact, and to such extent as to have induced many writers to believe cancer a disease of the general system, it is obviously a matter of vast importance, to find some plan of treatment, which will remove or prevent general contamination.

It has long been known that however little expectation of cure, that palliation, and for a long course of years, has been effected, by a careful avoidance of all mental distress, and a mild vegetable diet. And many an invalid from from this disease has been often made sensible of the advantages of rigid abstinence, on the one hand; and the disadvantages of transgression, on the other.

We have been led to these reflections, by reading a case reported by doctor L. Pierce, of Mass. in the *American Journal of the Medical Sciences*, vol. 8, p. 52. This case is highly in-

interesting on account of the decision, and perseverance of her surgeon, who performed a third operation far more formidable than the two preceding. But as there is nothing very remarkable connected with the operations, we shall not stop to give a detail of them, but proceed to notice what doctor Pierce considers the most interesting part of the case, that is, a cure of the general contamination by the use of Indian corn, as the principal and almost exclusive article of diet.

After two unsuccessful operations, the late professor Smith, of Yale College, was consulted, who, in addition to the repetition of the operation, advised the corn diet, and the use of iron and cicuta; both of which have long stood as feeble, and mostly inefficient, opposers of cancer. Who has not seen cancer running its dreadful course, spite of the liberal use of cicuta, or iron, or both? If there is any thing uncommon in the case before us, it is the employment of the corn diet; and there is some pleasure in the prospect, that it may possess curative properties.

Doctor Pierce tells us, that after the last operation, "nothing unfavorable took place to interrupt the healing of the wound, except some slight granulations shooting upon its edges, which were reduced by the daily application of the nitrate of silver. It soon entirely healed, and formed a round cicatrix, and the pains in the axilla and uterus had entirely subsided. She had, up to this time, [no time is mentioned, but she commenced the corn diet in August, and the operation was about the middle of September,] most rigidly adhered to her prescribed diet, eating nothing but boiled corn seasoned with salt; and drinking nothing but simple cool drinks. The pills (iron and cicuta,) were omitted after the operation. She was fully convinced that she was deriving essential benefit from her diet, and notwithstanding the severe self-denial it imposed upon her, most cheerfully submitted and clung to it as her only hope."

"When corn was in a fit state to boil, she had a large quantity of it gathered, boiled, dried in the sun, and laid up for future use. Prepared in this way it would not receive injury by keeping, and retained the flavor of corn fresh picked. On this she subsisted till the next season for green corn returned, when she supplied herself again from the field, and continued it during the season for it. She then began the use of boiled ripe corn, sometimes boiling it as it came from the cob; at others, being it cracked at the mill, and made into homony, which she eat with molasses. She frequently eat, instead of the corn bread made of Indian meal, mixed with water, and baked by the fire."

We are told that whenever this patient attempted to use of animal food, in however small quantity, the pains returned in

the axilla. She had suffered much, from pain of the axilla and uterus. The happy result of this case, should the cure be permanent, (and the operation was performed in 1827,) we think, must be ascribed to the diet; but whether it was owing to the rigid adherence to a vegetable diet, or to some peculiarity in the corn, remains to be decided, by future experience. It is not at all unlikely, but that the latter will be found to obtain sometimes, and should we thereby be enabled to save some of our patients from this painful and disgusting disease, and avert the tendency to the grave we shall have gained a most pleasing and satisfactory antidote to one of the most appalling diseases.

Some years ago, we had the care of a very interesting patient, with cancer of the nose of several years existence, but till near the time we saw it, of very slow progress. We advised with doctor Rush on the case. He advised a total restriction from animal food, occasional aperients, and the local application of Fowler's solution to the sore, to be succeeded at each dressing by the application of the recently expressed juice of garlic. The sore mended rapidly under this treatment, though the patient suffered a good deal from the smarting, and irritation of the Sneiderian membrane, which caused much sneezing, when the garlic was applied. This patient was so well at one time, as to speak confidently of a cure, and asked permission to write to a distant friend, that he was well, with a view of bringing that friend to us, he being affected with cancer, to undergo the same treatment. While we carefully watched, and deferred a decided answer, a mere spot of ulceration, for some weeks, with much concern, it gradually extended, and then resisted our remedies, and soon left the patient nearly as bad as ever. He lived several years afterwards, but died miserably, from the cancer.

## REVIEWS.

*Clinical illustrations of fever, comprising a report of cases treated at the London Fever Hospital, 1828, 1829.* By ALEXANDER TWEEDIE, M. D. &c. &c.

IN our last number we briefly noticed this work, and promised to offer some reflections on its contents. We then remarked that, "this is quite a practical work, but so far as sentiment is presented in the book, we do not recollect any thing which we have read that so entirely coincided with our own views of fever." Our reflections since the above sentence was written, have not changed—we therefore, now proceed to redeem our promise of a brief review, in the spirit of good will which we have expressed towards the work, founded on a conscientious belief that the sentiment, though very little in amount, is highly important in its nature—it may truly be said to be *multum in parvo*. We shall defer for the present any remarks on the practical department of the work—of this we shall speak, as our judgment shall direct, after we have noticed the theory involved in this interesting little volume.

Doctor Tweedie commences his work with a chapter on *preliminary observations*. He tells that he has devoted eight years to the observation of the phenomena of fever, in a *fever hospital*, and that his observations have led him to believe, that "the partial views which have been taken by many, of this general affection, prove that the disease has, in some instances, been studied more in the closet than in the sick chamber." We shall pass over this assertion for the present, first observing, that it accords with our own opinion.

1st. "In every case of genuine fever, (says our author) there is not one, but several organs affected; the affection in the first instance at least, is functional; however, soon this functional disturbance may pass into vascular excitement, and afterwards into inflammation."

2d. "Every one who has attentively studied the order of invasion of the symptoms, and more particularly those who have had personal experience of fever, must be satisfied that the brain and nervous system are early and primarily engaged in the febrile action; the disturbance in the brain is in the beginning, simply functional, though it may sooner or later, according to particular circumstances, assume an inflammatory character."

3d. "The circulation next partakes in the disorder; there is generally, though not invariably, quick pulse and heat of skin, to

which, as a consequence of the previous condition of the sensorium, succeeds a vitiated state of the secretions. Hence, the furred tongue, thirst, depraved taste, and turbid urine, observed in fever."

4th. "It is evident, that in the state of febrile excitement; to which the term of simple fever may, with strict propriety be applied, there is no preponderance of action in any organ; all parts of the system partake equally in the general disturbance. This may continue for an uncertain period, probably for a few days, when it is either brought to a termination by proper measures, or subsides spontaneously."

5th. "When the torch is lighted, when the circulation is quickened, and the blood consequently impelled with greater velocity through organs whose functions are already disordered, the transition from excitement to inflammation is often rapid. When there is a predisposition to disease in any part, the febrile action is most likely to prey on the organ so predisposed, and the period of fever at which the inflammation comes on, as well as its intensity, will depend on a variety of concurrent circumstances in each individual case."

6th. "In one instance, we find the local affection in the brain; in a second, in the organs of respiration; in a third, in some of the abdominal viscera, most frequently in typhus fever in the mucous membrane of the intestines; and it not unfrequently happens, that more than one of those organs is simultaneously inflamed."

7th. "The inflammation which supervenes in the progress of fever, however, is of a less intense kind than in the ordinary phlegmasiæ. I do not pretend to explain satisfactorily to what this modifying circumstance in fever is attributable, but I am sure that the principle is correct; and he who treats complicated fever with the same activity as he would treat any of the phlegmasiæ, is utterly ignorant of one of the most important principles on which the treatment should be conducted."

8th. "Fever is not inflammation—it is, therefore, not cured by remedies that effectually remove the latter, though its violence may be mitigated, and its duration shortened, by the modified application of the same measures."

9th. "I regard fever, therefore, as primarily a general disease, which, however, in by far the largest proportion of cases becomes in its progress, complicated with some local inflammation. The nature and intensity of these local affections, we shall find to be exceedingly various. The danger of the patient is always in proportion to the severity of the inflammation; to the importance of the organ implicated; and to the nature and early application of efficient measures."

10th. "From the frequency of some form of complications in fever, ingenious speculators have attempted to ascribe the whole phenomena to one or other of these local affections, thus reducing fever to a mere symptomatic affection. The nervous, vascular, and gastric systems, have all had their partizans; but it argues ill for the localists, that they have not been able to fix on the same individual organ, as the invariable source of the febrile disturbance. Such speculations, however, have had a beneficial effect in bringing more fully under review the comparative frequency and importance of the several local affections: this has been followed by improvement in the general principles of treatment, and the more minute application of such measures as are calculated to subdue any local organic diseases which may supervene."

For the sake of more easy reference, we have added a series of numbers to the several paragraphs of the foregoing *preliminary observations*. These few short paragraphs, in our opinion, contain the whole substance of what is known upon fever as regards its positive nature. Such being the fact, we enter upon an exposition of this aphoristical chapter, with no small share of diffidence, lest we may fail in doing any sort of justice to a subject so vastly important to mankind; the more so, because we are necessarily confined to very narrow limits for our reflections. We shall, nevertheless, endeavor to engraft upon the few fundamental principles, presented by our author, such observations as have presented themselves in our general experience, as well clinical, as that which has been otherwise acquired.

The first reflection which presents itself, upon reading paragraph first, is the fact, that the opposite opinion, held by the localists, as Clutterbuck, and Broussais, &c. and that as has been said by our author, in paragraph 10, "it augurs ill for the localists, that they have not been able to fix on the same individual organ." And we are reminded here of what our author has said in paragraph 7—"when there is a predisposition to any part, the febrile action is most likely to prey on the organ so predisposed;" also of the fact well known to Sydenham, and others, that fevers mostly partake of an epidemic character, which is perpetually varying; so that no two epidemics, similar in kind, and equal in force, are to be met with. The fact obtains in different seasons, and in different countries. Thus we are told, by our author, in paragraph 6, that, "in one instance we shall find the local affection in the brain; in the second in the organs of respiration; in a third, in some of the abdominal viscera, &c." We think nothing is more clear than the fact, that these local appendages or tendencies of fever differ, in different countries—for instance, in the U. States, and other countries, where tendencies prevail that



are well denominated bilious tendencies, we see most fevers accompanied with hepatic derangement, as well by the vitiated state of the bile as in the post mortem appearances of the liver and its associated organs. We know, that in most instances there is a great accumulation of vitiated bile at an early stage of the fever; and also, that such a condition being once present, will continue more or less time, according to the violence of the case, the peculiarity of the season, or the more or less early and efficient treatment. At the same time, it is quite certain that no such bilious tendency obtains, in general, or even commonly, (perhaps, almost never in France.) It follows then, that however important the views of Broussais, and his followers, when applied to fevers in France, they do not apply here. From these premises we get the following conclusions.

In France the predominant tendency of fever is to the "abdominal viscera, and hence the vast importance of this pathological fact to that country; and it cannot be questioned, that this discovery, or at least, the new light which has been thrown upon this subject by Broussais, entitles him to immortal honor. Since then in France, most fevers are not attended by that remarkable derangement which obtains in this country, but on the contrary, are known to concentrate their deleterious force on the stomach and intestines, too much importance cannot be attached to them, where their application is so obviously correct. But how different is the case, where the phenomena of fever are so different as to require a course of treatment entirely different.

Thus, in France, leeches over the region affected, (for the abdominal hollow viscera are early and mainly affected,) gum water, &c. will serve to arrest this tendency of febrile action. In this country, it is as well known as any other truth in nature, that, in most epidemic fevers, we must remove sordes, mostly vitiated bile; and also, correct the fault of the secreting organs, by which healthy bile is afforded. The accumulated experience of several generations, proves that nothing will answer this purpose so well as the proper use of calomel; with such other purgatives, or aperients, and emetics, as the case may seem to require.

If, then, we award to M. Broussais immortal fame for the light which he shed on French pathology in fever, surely no less distinction is due to Rush, and a few of his contemporaries, for discerning the nature of, and the proper treatment for American diseases, or for improving American pathology of fever. We will not, however, withhold from M. Broussais high praise for setting more clearly before the world the true pathology, which sooner or later takes place in all countries; we mean deadly local action, but while we admit that Broussais has made it appear that gas-

tric, and enteritic disorders are more common than was supposed to be the case before his researches, we nevertheless hold it to be one of the most important truths connected with fever in this country, that so far is gastro-enteritis from being the cause of fever, it is but a consequence, as is abundantly proved by an examination of the phenomena of fever throughout the world. And hence the value and truth of the assertion, that febrile action will prey upon the organs most disposed to receive it; those organs we know to be the *brain, chylopoietic viscera, or a part of them, as the stomach and intestines; or the spinal brain*, as remarked by doctor Tweedie, and well known in this country.

We have already said, that in this country, the principal tendency is to the liver, and its associated organs—that the fever, which we, with doctor Tweedie, believe to be, “in the first instance at least, functional,” continues to exert its influence in keeping up this wrong functional action. The labors of Broussais, and his collaborators, show beyond doubt, that in France, gastro-enteritis predominate. The present writer was assured last year, by his friends doctor Barkhausen, and Wilckens, at Bremen, in Germany, that the brain is most liable to suffer; that even intermittents generally, when severe, partake of the comatose character. That in the years 1825 and 1826, an epidemic fever prevailed to great extent, in consequence of the breaking in of the waters over the dykes, over a vast extent of sea coast, and river margin. This fever, which was attended with a good deal of mortality, was generally in the form of *febris intermittens comatosum*. And in my intercourse with my friend doctor Vestring, a physician of considerable distinction at Götheborg, in Sweden, I was assured, that he saw little or nothing to corroborate the experience of M. Broussais. Doctor Vestring is extensively engaged in private practice, and has a considerable hospital under his care. Here too, the tendency is to the brain. And it is a singular fact, that throughout our acquaintance with the north of Europe, *mania á potu* prevails to a very extraordinary extent; this we were assured of at Bremen, Hamburg, Copenhagen, Götheborg, &c. Doctor Barkhausen assured the present writer, that notwithstanding that he found moderate doses of calomel very important in the early stages of fevers, that still, he almost never saw those dark dejections from the alimentary tube, which are so common in America.

Our author, in paragraph second, says, “the brain and nervous system are early and primarily engaged in the febrile action.” We think it cannot be questioned, that headach is a symptom the most common of all others in the early stage of fever; where this symptom is absent, and sometimes when present, there is

much giddiness; and inability to sleep, is also, one of the first symptoms. We shall presently show, that doctor Tweedie's facts bear him out in this assertion, but before we very briefly state his experience, we will relate a fact, which, so far as it goes, has a strong bearing on the point before us. The present writer was extensively engaged in country practice in early life; during that time, he saw two very sickly seasons—though constantly exposed to the malaria for several weeks, night and day, he felt little from its effects, except an occasional impairment of vision, with a light greenish yellow shade over most objects—this would last for hours, when much fatigued; and yet, with this exception, his sight has been uniformly good, nor has he ever had any disease of the eyes whatever. And, in all instances, when he has fever, there is such a continual buzzing, wringing, &c. in the head, that he can never sleep during any considerable fever, and has twice been eight or nine nights and days without being conscious of being soundly and fairly asleep.

Our author, in his reports of his observations, gives us the following summary.—“Of the 521 cases, (the number reported for one year,) 114 had well marked symptoms of severe cerebral affection, indicated by one or more of the following symptoms: some giddiness, sense of weight or fulness, watchfulness; and in the advanced stages, delirium, coma, spasm, or more rarely, convulsions.”\* We are, however, correctly told, that “in a large proportion of cases, the condition of the brain constituted only a part of the danger, other organs being at the same time inflamed; for example, in 26 the head and chest, in 30 the head and belly, and 14 in the head, chest, and abdomen, were simultaneously affected.”

The reader must not suppose that either our author, or ourselves, are advocates for the location of fever in the head; on the contrary, we believe, with doctor Tweedie, that “this condition of the brain, however, is not to be regarded as the primary cause, but one of the secondary effects of fever.”†

We deem the following too important to pass over.—“Fever shows a tendency to assume a particular form, not only in certain epidemics, but at particular seasons; hence it was observed, that the cases admitted in May, June, and July, shewed a tendency to the cephalic form; of 133 admitted in this quarter, 55 had inflammation of the brain, of whom 48 required copious depletion to subdue the symptoms.”‡

In paragraph third, we are told, that “the circulation partakes in the disorder; there is generally, though not universally, quick

\* Tweedie on fever, page 23.

‡ Ibid.

† Tweedie on fever, page 24.

pulse and heat of skin,"\* to which succeeds, as a consequence, *furred tongue, thirst, depraved taste, and turbid urine*. Our author has here named but a few of the more striking phenomena of fever, which go to prove general derangement.

The present writer published his reflections upon this subject in the year 1817, in Baltimore; and, since he thinks they set forth the phenomena of fever in a pretty strong point of view, we think proper to quote so much of these reflections as bear on this point, from a pamphlet published by John Toy, being "lectures on fevers in general."

"*Of the signs of all fevers.*—A fever is a morbid condition of the body, and is discoverable by the following *connote signs*. But there are many *occasional signs*, which more especially point out the character of individual cases.

"*Of the connote signs.*

The connote signs of fever are but few; they are, first, A. Some disturbance in the arterial system; and, although this is sometimes slightly expressed, and at times not discernable at all, by the physician at his visits, still it may be laid down as an *invariable fact, that no person laboring under fever, can pass twenty-four hours without some derangement of the arterial action*. This derangement is to be learned by studying the pulse.

B. Some change in the skin, which is either preternaturally warm, cool, moist, dry; or affected with the cutis anserina, soreness, or discoloration.

C. Some change in the feelings of the patient as respects temperature, being either preternaturally warm or cool. Although this is not always present, yet no person of sound mind can pass through a paroxysm of fever without being sensible of it.

D. Some diminution of the animal powers, or (in some rare cases,) an increase thereof, for a short period of time.

E. Some disturbance in sleep, which is either deficient, or excessive.

F. Some disturbance of the respiration. And, although the patient may not always feel, or exhibit to the physician, any derangement of this kind, when composed in a horizontal position, yet it occurs when any muscular action takes place.

"*Of the occasional signs of fever.*—In bringing to view the occasional signs of fever, I shall have occasion to bring some of the connote signs again to view. For, although these signs are implied in all cases of fever, and confined to particular parts of the system, yet, as there are different conditions of the parts concerned in expressing those connote signs, it is necessary to

\* Tweedie on fever, page 24.

bring them individually to view. I now proceed to point out the *occasional signs of all fevers*.

"The signs of which more or less are to be found in all fevers, are: nausea or vomiting; foulness of the tongue; pain in back, head, or other parts of the body; giddiness; morbid cravings for some particular kind of drink or food; preternatural thirst; or in some very rare cases, adipsia or absence of thirst; some disturbance in the urinal function, being an increase or diminution of the quantity, or it is loaded with a lateritious (or other) sediment, or it is unusually limpid; some derangement of the bowels, which are too open, or constipated, or disturbed with flatus; spasms, sometimes in the form of convulsions, tetanus, &c.; soreness of the flesh; hemorrhagy; hiccup; tinnitus aurium; intolerance to light and sound; delirium; subsultus tendinum; cough; deafness; coma; loss of vision, and false vision; paralysis, affections of the eyes, being a suffusion, red or yellow, want of lustre, dilated or contracted pupils; aphthæ; stridor dentium; facies Hippocratica. Will any one say, that all these phenomena are derived from, and dependent upon, gastro-enteritis? But to show still more strongly how little such an opinion corresponds with the multifarious phenomena of fever, we shall continue our quotation, into some of the minutiae connected with the *connote and occasional signs of fever*.

"Further observations on the connote signs of fever—the reader is referred back to paragraph A. In that paragraph, I have spoken of the morbid condition of the pulse, which will be found to consist in its being preternaturally frequent, slow, strong or hard in its beats, tense to the touch, feeble in its beats, intermittent, irregular.

"Further remarks on the connote signs noticed in paragraph B. Among the connote signs, I remarked that the skin is sometimes preternaturally warm; this sometimes partial, but mostly general.

"The skin preternaturally cool, amounting sometimes to chills, or shiverings; sometimes partial, situated in the back, or lower extremities mostly.

"The skin preternaturally moist or open, being sometimes a profuse deadly sweat, as in the sudor anglicus, or in form of colliquative sweats, as in hectic fever. Sometimes moderate; and may be salutary, unimportant or prejudicial.

"The skin preternaturally dry; this is much the most common state of the skin, in fevers of this country, particularly at the commencement, often discoverable by a rough husky feel.

"The cutis anserina is mostly attendant upon a chilly state of the body; and, therefore, is found mostly about the accession of

a paroxysm of fever; this appearance is not, however, always an evidence of disease.

"Soreness of the skin attends rheumatism, and other inflammatory diseases; but is, perhaps, most common in malignant fever.—The late dengue fever, affords a strong specimen of this soreness of the skin; we have also witnessed it lately in scarlet fever.

"Discoloration of the skin arises, perhaps, in all cases, from effusion of bile; and is to be met with from the mild intermittents, to the most malignant yellow fever.

"Eruptions are sometimes accidental, as in croup, cynanche, maligna, yellow fever, &c. Sometimes characteristic of the diseases as in small pox, measles, &c."

Since it is known that a very large majority of mankind die of fever, before they arrive at the period that may fairly be called old age, we trust we shall be pardoned for endeavoring to throw a little light upon the subject. The most mature reflection leads us to believe, that the following observations upon susceptibility may not be unimportant, since they conspire, with the phenomena which we have just pointed out, to show that fever is, in its nature, a general affection, but very liable to give rise to local disorder.

"All susceptible conditions may be distinguished into four kinds—these may be explained under the terms of extinguishable, inextinguishable, fortuitous, and particular susceptibility.

"The extinguishable susceptible, under equal circumstances, subjects every human creature, nearly alike to be acted on, by certain noxious powers. The most remarkable of the diseases which assails us through the medium of this susceptibility or condition, are small pox, measles, hooping cough, chicken pox, angina parotidæa, and cow pox. This condition is distinguished by the circumstance, that (with a very few exceptions,) it is wholly destroyed by the operation of those diseases which act upon it.

"The inextinguishable susceptibility, under equal circumstances, subjects every human creature nearly alike to be acted upon by certain diseases, under equal circumstances, but differs from the extinguishable by the circumstance, that we are liable to a repetition of those diseases, that assail us through this condition (that is, the indistinguishable.) The diseases which attack us through this condition, are principally epidemics, including intermittent, remitting, typhus, and yellow fever, scarlet fever, plague, influenza, and dysentery.

"The fortuitous susceptibility, renders us liable to many diseases; it is to be distinguished from the extinguishable and inextinguishable conditions, from the circumstance, that the dis-

cases which attack through the medium of this condition, do not arise from any specific cause, and, therefore, the same causes may produce different diseases, in different persons; or in the same person under different circumstances. The most obvious of these are consumption, as a consequence of pneumonia, tabes, diabetes, rheumatism, gout, angina pectoris, croup, stone, asthma, &c. &c.

"The particular susceptibility, happily for mankind, is not very predominant. It is a very distressing condition of life, requiring the most rigid adherence to temperance, to keep off disease. Sometimes, indeed, no precautions are sufficient to ward off disease. But by knowing the fact, that disease may generally be avoided, notwithstanding this kind of susceptibility; a very important truth is presented to view, and will often enable persons hereditarily susceptible, to escape this foe in ambush. This kind of susceptibility is generally hereditary."

We hope our readers will pardon this seeming digression, when we remind them, that very little attention has been paid to this subject, and we think, none can doubt its importance, in the investigation of fever, since liability to, and modifications of disease, will grow out of the several conditions which we call susceptibility. Then, as we see thus obviously, that there are those general susceptibilities, so may we infer analogically, that the different organs will likewise have their susceptibilities—but observation has rendered it no less certain, that these partial susceptibilities do exist, so as constantly to modify diseased actions, as certainly as that the general susceptibilities do really exist. And hence it is, that when some remote cause shall have given rise to the *connote signs* of fever, pointed out page 467; as the partial susceptibilities differ, so will the *occasional signs*, noticed page 468 differ—that is, fever once excited, as is said by doctor Tweedie, will give rise sooner or later to partial diseased action, from which, indeed, we are to infer most of the dangers of fever. We are aware that these peculiar actions or tendencies in fever, have been ascribed to sympathy, but what do we mean by sympathy? When there is an association of diseased actions, one or more of which have existed previous to some one, or more *others*, it is usual to say, that such parts sympathize. But let a person be exposed to the variolous infection, and he will take the disease, or not, as there shall happen to be a susceptibility, or not. If he take the disease, it is not by sympathy, but by susceptibility; and if we see, that as the disease shall be more or less violent, so will be the amount of eruption, we cannot say that the skin suffers by sympathy, since it takes on a diseased action different from the diseased phenomena, as seen in

all other parts of the system. It is, therefore, by partial predisposition or susceptibility, that the skin suffers in this disease; so, in fevers arising from malaria—the *connote signs* once excited, (which see page 467) and we then find, that as certain organs are more or less susceptible to the morbid influence of the condition known by the term *connote signs*, so shall we have the fever modified—hence a tendency to the stomach and intestines, to the liver, brain, spinal marrow, lungs, skin, &c. and we also see modifications compounded of affections of two, or more, of those partial susceptibilities.

We cannot but felicitate ourselves with the belief that our exposition of fever, in which we present the phenomena in the *connote signs*, and *occasional signs*, is vastly important in settling the matter of controversy between the absolute localists, and their opponents. We argue that all fevers are ushered in by those *connote signs*, already noticed. This admitted, we know that these *connote signs*, being excited by variolous matter, we shall have a certain tendency to, and a certain morbid change in the skin—so of measles, and all the exantheams. Now if the *connote signs* are obviously precedent to the *occasional signs*, through the class of exantheamata, how shall we undertake to say, that in fevers arising from malaria, the partial derangement or the *occasional signs*, precede the *connote*? That is, the localists say, there is first irritation of the stomach and intestines, or either, and the *connote* or general signs of fever follow as a consequence. Moreover, we must not overlook the fact, that the existence of irritation in the hollow viscera, in the incipient stage of fever, is gratuitous, since we only infer it from our observations on the dead body, after the disease has run its course, and ended in death. Such conclusions, without a possibility of proof, should not be made to outweigh the fact, that all analogy is against such a supposition—that is, since a considerable class of febrile diseases, some of which are sometimes diseases of great violence, obviously exhibit the *connote signs* or general phenomena, for some days, before the local derangement has taken place; and that other fevers exhibit these same *connote signs*, in their early stage, shall we conclude that as they both commence in these general phenomena, (or, at least, we recognize no others in a majority of cases,) that, therefore, as the one is known to terminate in certain local morbid action; in the other case, things are reversed—i. e. we have first local derangement, and then *general*; and we draw this general conclusion from the circumstance, that the localists find evidence of local morbid action, after death!

“Fever is not inflammation, (says our author,) it is, therefore, not cured by remedies that effectually remove the latter.”—“The



inflammation which supervenes in the progress of fever, however, is of a less intense kind than the ordinary phlegmasia."—This view of the subject accords with our own—we also believe the following conclusion to be correct. "I regard fever, therefore, as primarily a general disease, which, however, in by far the largest proportion of cases becomes, in its progress, complicated with some local inflammation."

We have long held the opinion that fever is in its nature a general affection; and notwithstanding that we long since thought, as does doctor Tweedie, "that the danger of the patient is always in proportion to the severity of the inflammation," yet, that danger, so arising from local inflammation, is made *dangerous* by the general phenomena of fever; and hence it is, that an inflammation arising from fever, is so much more dangerous, than an inflammation which we know by the name of *phlegmasia*. Can there be a stronger fact in favor of the belief, that gastric irritation is not the cause of fevers, arising from malaria as their remote cause?

We shall probably never be able to comprehend the absolute nature of fever, but we think the phenomena do most clearly show, that there is a general morbid state—we mean not so much a wrong action, as a sickly action; not a mere derangement in the several vital powers, but a deterioration, either in the powers, or the organs, or perhaps both. This is not a new opinion with us; but, the present writer was never so sensible of its reality, and its nature, as during a protracted and severe spell of sea sickness.

In this disease—there was deadly sickness at the stomach; every thing taken in, was converted directly to a strong acid, much vomiting attended. Yet, it was only necessary to empty, or cleanse the stomach, and lie quiet, to remove all this derangement. The taste was vitiated, but the state of the skin was natural, the pulse in no degree disturbed. The muscular power was never prostrated, except by the direct and immediate influence of the sick stomach—remove this, and the muscular power recovers sooner, and to greater extent, than the state of inanition would seem to admit of. In a word, we believe, that in fever there is besides a general disturbance of the sensorial powers, a deterioration of the blood in a chemical sense; that is, a slight deterioration—and hence one of the benefits of blood-letting: we draw off a portion of a stimulating, circulating fluid, now in degree morbid; or changed in its vital properties. As this state of morbidness shall become greater, so will the danger increase, at least, in malignant fevers; and hence it is, that it is in fevers of but little force, that we may expect to cure by means

of warm water, leeches, gum water, external cold applications, &c. Where there is a deep laid morbidness, these remedies are useless, to say the most. Here free depletion by the lancet, purgatives, emetics, antimonials, blisters, &c., are alone to be relied on; and when biliary affections predominate, no purgative will do so well as calomel. In fevers of low action, however powerful stimulants do service, after actual exhaustion of the sensorial powers has taken place, from any cause—nor must we forget the importance of certain tonics in fevers of an intermittent type.

We have now examined the general principles advanced by doctor Tweedie, in his preliminary observations; more fully than we had anticipated, we shall more briefly notice his other chapters. Indeed, the subsequent chapters are little more than a corroboration of the sound, and very important doctrines, laid down in the first chapter of the work before us.

Chapter second, treats of the origin of fever hospitals—of the London fever hospital—object of the present treatise. Table of the number admitted into the fever hospital since its establishment, in 1802. *Statistical account of the fever in London.*

Under the first head our author tells us, that much improvement in the treatment of fever takes among the poor, has grown out of the circumstance of separate buildings having been appropriated for that purpose, so that each patient should have a separate ward, sufficiently large and well aired. The institution from which he derived his clinical knowledge of fever, commenced in 1802, with accommodations for 16 persons; and, in 1826, upwards of seven hundred were admitted during the year. "The class of patients generally admitted, is composed of domestic servants of subscribers, of the inmates of parish work-houses, artisans, and the various orders of the laboring poor and their families." What an amount of suffering must thus be averted, by this increasing source of charity!

We do not see any thing particularly important in this chapter—it is, indeed, principally devoted to the history of the fevers, and other circumstances, connected with the hospital: the following fact seems too important to pass over—"In the early part of the succeeding year, (1827,) a severe frost set in, and lasted an unusually long time. The prevalence of the fever was consequently checked." We notice this fact, because it serves to prove, that the fever noticed was the product of malaria.

This to be sure is just what we expect, but it is an important question, whether much of this fever was not typhus? Nearly all the cases are put down for ten years, as cases of continued fever—the only exceptions are a very small number of scarlet

fever cases. None of these are put down as cases of typhus, but we cannot admit the supposition that, so many cases of fever should exist in the continued form, without taking on more or less of the typhus form. Certain it is that, no such fever prevails in this country. In almost all epidemics; and, indeed, in sporadic cases, we constantly see our fevers assuming the remittent or intermittent form. This question has an important bearing on the writings of doctor Armstrong, and we think the facts confirm his latest opinion, that *typhus has malaria as its remote cause*.

The third chapter contains *the period selected for the present report, monthly admissions, and mortality of cases—table of the comparative ages, and mortality of fever—classification of fever—of the cases of simple fever—of complicated fever—affections of the brain in fever—affections of the organs of respiration in fever—abdominal inflammation in fever—of the state of the spleen in fever*.

The period selected embraces 12 months, ending on the 1st of September, 1829. The admissions were 521, of whom 73 died. In the table of monthly admissions, we have the following summary:—September admitted 60; died 12—October 44, died 6—November 24; died 5—December 52; died 2—January 67; died 8—February 49; died 6—March 41; died 5—April 28; died 2—May 56; died 9—June 41; died 8—July 36; died 7—August 23; died 3.

We notice the fact here, that this fever prevailed with a much greater degree of uniformity than obtains in the United States. Thus, we have 76 in January, and fifty-six in May, periods at which we see but little fever in this country. We notice this fact in corroboration of the opinion which we hold, that every country has its own peculiar diseases.

The table of the comparative ages, and mortality of continued fever informs us that, the greatest number admitted were between 15 and 20 years of age; the next greatest is between 20 and twenty-five—but the proportional mortality of the latter is much the greatest—the greatest mortality was between 50 and 55.—The sexes were in the proportion, of 227 men, to 294 women, a difference of 67 against the latter. Doctor Tweedie ascribes this greater liability to fever, at the ages of 15 to 20, to the fact of many young persons coming from the country, to the impure air of the city, and to partake of the vices of a city life. If this be not the fact, we should have a striking difference in this respect to what we see in this country, persons at this age not being as liable to fever as those somewhat more advanced in life.

Our author lays down the following classification of fever.—Three divisions; *continued, periodical and eruptive*. The contin-

ued he divides into *simple, complicated and typhus*. The other subdivisions we need not follow. We are told however, that periodical fevers are seldom received at the fever hospital; what is this *continued simple*, but simple typhus?

We have already stated the proportion of cerebral, abdominal and other tendencies in this fever, we may remind the reader, that *cerebral* predominates considerably; but we consider the following fact of the greatest importance. In speaking of preponderance, to this or that organ, our author says, "on this point, I may state that I have daily opportunities of observing cases, which correspond with the description of the simple fever of many writers, in which there is no preponderance of action in any organ that can be detected by symptoms." We are told that of those admitted 521, more than 100 came under the description of simple fever, that is, the disturbance in the system was general; there was no evidence by symptoms of affections, either in the head, chest, or belly. But our author justly remarks, "when we recollect how often organic disease steals on, undetected by local diseases, the condition of the organs in what is termed simple fever, requires minute investigation." "The character of this class of cases was, increased heat, accelerated pulse, thirst, and general functional disorder."

The following practical observation is too important to pass unnoticed—"from an inactive state of the muscles concerned in the expulsion of the urine, accumulation in the bladder often takes place; so that in all severe cases of sensorial disturbance, the region of the bladder shall be examined at each visit, as I have often seen great additional irritation arise from this cause. I have known a practitioner thrown completely off his guard, by the patient passing small quantities of urine unconsciously, which not unfrequently happens when the bladder is over distended. Appropriate measures should be adopted before such an accumulation takes place, as it not only proves a source of distress, *but the sudden removal* of so large a quantity by the catheter, in the advanced stages of fever, is sometimes followed by an alarming collapse, from which it is not easy to rouse the patient." We are advised to ascertain, in doubtful cases, the quantity of water made, and where there is any difficulty, the catheter should be passed; nevertheless the author noticed the fact, frequently to be seen in cases of fever, a deficient secretion of urine.

Doctor Tweedie tells us, that without care, in the regulation of the temperature of the air during convalescence, there is considerable liability to affections of the throat; that the inflammation is often confined to the membranes—that he has seen four persons die of cynanche laryngea, and he has been led to conclude,

that, "when the larynx is attacked with acute inflammation, which generally terminates rapidly in edematous swelling of the glottis, and the subsequent death of the patient by strangulation, the only chance of saving the unfortunate sufferer is, by having immediate recourse to the operation of laryngotomy.

"This is more especially imperative when the disease occurs in connection with fever, because, although the cases I have seen in the hospital came on during convalescence, yet the powers of the patient were not sufficiently recruited to admit of the active treatment, a disease so truly alarming instantly demands.

"This suggestion ought certainly to have been adopted in the following case, which came under my notice sometime ago.

"A girl aged 13 years, after a smart attack of scarlet fever, in which the inflammation in the throat had been very severe, was suddenly seized with symptoms of laryngitis; the breathing was very laborious, and attended with stridulous noise, and frequent attempts to cough, which efforts produced the most intense distress. Her deglutition was exceedingly painful, so that she dreaded every attempt to swallow even a little food. The uvula and tonsil were red, but not much swollen; the pulse 140; the skin cool. Leeches had been applied to the throat before I saw her, but with little relief.

"I proposed that an opening should be made into the wind-pipe, but this was objected to. Blood was therefore directed to be taken from the arm; a blister to be applied to the throat, and doses of calomel to be taken at intervals. She died, however, eight hours after I saw her, having derived only temporary benefit from those measures.

"On examination of the body, the tonsils were swollen, and from the enlarged mucous ducts a small quantity of puriform fluid escaped; the mucous membrane covering the epiglottis, and the upper portion of the membrane of the larynx were inflamed and edematous; but the inflammation not having extended below the rima glottidis, this portion of the tube retained its pale healthy appearance; the parotid, sublingual, and submaxillary glands were enlarged.

"This case affords an instructive lesson; the bloodletting and other measures evidently hastened the death of the child; and from the healthy condition of the organs below the seat of disease, it is probable, that the operation would have saved her life."

Doctor Tweedie tells us that "several opportunities occurred of observing an insidious form of bronchitis, to which the French writers have given the term *latent*; there is scarcely any cough or expectoration, nor is the alteration in the breathing so great as

to attract attention, till the bronchial inflammation has made considerable progress."

And we are told that this "latent bronchitis very often tends to increase the danger of the fever, not more from the difficulty of treating it, than from its being apt to be entirely overlooked, more especially when there is any other local affection of more prominent urgency to arrest the attention of the practitioner."

In the treatment of the fever thus complicated, or where there was a tendency to pneumonic affection, our author says, "I do not recollect one instance in which depletion was at all admissible that was not decidedly improved by a moderate bleeding from the arm; though many cases were admitted in such an advanced stage of pulmonic inflammation, that it was doubtful how far even local bleeding was advisable. Such cases were sometimes treated by calomel and opium, with or without the addition of digitalis and counter-irritation."

"The remedy, however, in which I placed most confidence, in inflammation of the lungs, but more particularly in bronchitis, either as an auxiliary to bleeding, or when this operation was not justifiable, from the length of time the local symptoms had existed, was the tartar emetic in doses of one or two grains, every second, third, or fourth hour, according to circumstances."

"In general it produced a severe vomiting at first, the violence of which was very often lessened by a few drops of laudanum to each draught; but when the tolerance was established, it was most satisfactory to witness the gradual decline of the more urgent symptoms in the chest, and the conviction in the mind of the patient, though much suffering had been endured from the vomiting, when the medicine was first administered, that their amendment was ascribed to the remedy."

Doctor Tweedie has been led to conclude that the convalescence of patients was more tardy after the use of calomel and opium, than after the employment of the tartar emetic, according to the above plan.

We are told that in a number of "instances, the symptoms in the chest had been entirely overlooked before the patient was admitted—while in others the disease assumed a slow insidious form, without any very well marked symptoms, except a little acceleration of the breathing, and a slight increase of fever, when there had been much disturbance in the nervous system, it was very often so obscure as to be entirely overlooked." "The stethoscope in such instances is the only sure method of detecting the state of the lungs; and under such circumstances its utility is unquestionable."

Our author found "in a large proportion of the bodies examined after death, a remarkable softness of the spleen, accompanied with considerable enlargement of this organ."

We think, it is pretty well ascertained that the spleen is associated in office with the chylopoietic viscera, and although we do not recollect that so remarkable a concern of the spleen has been noticed; still it is not much to be wondered at, that this organ should sometimes be deeply involved in fever, since we know that the organs with which it is associated in office, suffer much in most fevers, especially in those arising from malaria. This fact goes we think to raise the presumption of malaria being the cause of the London fever, and also to support another fact upon which we have often insisted, to wit, that no two epidemics are alike, and that the fevers of no two seasons are attended with, precisely, similar phenomena.

It is a fact, however, and it has been noticed by our author, that the spleen suffers in an especial manner in intermitting fever. But this seems to be in some degree dependent upon idiosyncrasy. Thus, while we see dozens of ague patients suffering for months, and having the disease year after year, without any visible disease of the spleen, we now and then see one less addicted to ague, with a spleen enormously enlarged.

The following subjects are treated of in the fourth Chapter.—*Typhus fever—simple typhus—various complications in the brain—in the lungs—in the intestines—state of the mucous membranes of the intestines—intestinal ulceration—intestinal perforation—affections of the cutaneous system—Petechiæ—Erysipelas—gangrene—affections of the glandular system.*

Doctor Tweedie tells us that, under the term typhus, he includes cases of "fever in which the brain and nervous system are early and severely affected, accompanied with symptoms denoting a morbid condition of the mucous membranes and skin, and a tendency to what is known by the term putrescency. This tendency is indicated by the condition of the blood, especially in the advanced stages; the crassamentum of which, instead of forming a firm coagulum, is loose, and small in proportion to the quantity of serum, and so soft, that it breaks readily on attempting to raise it, resembling in consistence, half boiled currant jelly. In some instances I have observed, that when blood has been abstracted late in the disease, it scarcely coagulates at all."

The reader will perceive, that our author is more precise in his requirement, for the constitution of typhus fever, than falls to any disease in the whole catalogue of human maladies. To us, it appears obvious, that doctor Tweedie does not admit a case to be typhus, unless it be a very severe disease, approaching a state of malignancy: for, what else can he mean by a tendency to pru-

trescency? Now we constantly, even in small pox and yellow fever, see cases very mild; and, so of all disease—and indeed, our author is speaking of simple typhus and yet, tells us there is a tendency to putrescency.

But in describing simple typhus he says, “the symptoms in the commencement of typhus fever being all referable to functional, rather than to vascular, disturbance in the brain, I think the term simple typhus, which corresponds with the adynamic fever described by Pinel, and other French writers, is peculiar applicable.”

“Doctor Burnes, who has published a very good description of this form of fever, has certainly given an impression that the simple typhus, or adynamic fever is the general character of the common, or epidemic fever of London.” Doctor Tweedie appeals here to his own experience, and that of other practitioners of London to support his dissent from this opinion of doctor Burnes. For ourselves we think, the satisfactory manner in which doctor Burnes is said by our author to have described the disease in question, together with our general experience in this country, is sufficient proof of the soundness of the opinion of doctor B. We have already said, that in our experience, we never saw an epidemic fever of the continued form, that was not of the typhus or typhoid grade of fever.

Doctor Tweedie says that typhus is liable in its progress to become complicated with some local congestion or inflammation either in the brain, chest or belly. Admitting this, it follows, that there is indeed, but a slight shade of difference, if any, between simple typhus, and the simple continued fever of our author. There does not appear to be any absolute difference except that in the aggregate, there is a greater predominance of debility in typhus, than in simple continued fever.

In noticing the tendencies to local affection, doctor Tweedie tells us, “there is a much greater tendency to affection of the intestinal mucous membrane in the progress of typhus than in any other form of fever; indeed, this is the most usual abdominal complication.” We have, in an early part of this review, noticed different circumstances and opinions, connected with this point; and there, attempted to show that it is never the cause of fever; nor is its existence as common as contended for by M. Broussais and others—we shall close our observations on this very important, and still controverted point, in the language of doctor Tweedie. Speaking of the mucous membrane of the intestines, he says, “now, did we find this membrane so universally inflamed as has been affirmed, this theory would have probably a better chance of being adopted than any which the localists have yet proposed; but when we recollect how many cases of pure fever



have been examined by good anatomists, in this and other countries, and even in the very place from which the notion first emanated, and no unhealthy appearance discovered, I confess I am inclined to regard this condition of the mucous membrane, as one of the many complications of this inscrutable disease. At the same time every one must admit that great praise is due M. Broussais, for the zeal and ability with which he has prosecuted this department of pathology, and for having been the first to call the attention of the profession more particularly to this important and very general complication.

Speaking of the subject of ulceration of the intestines, our author tells us, that this is a frequent occurrence. Of 54 dissections, made at the fever hospital, 16 had ulcerations; and of these, 8 were in the ileum—2 in the ileum and cæcum—in the cæcum, 1—in ileum, colon, cæcum, 1—in the ileum and colon, 4. We have no hesitation in saying, that this fact does not correspond with what is generally to be expected in bodies that have died with fever—It is a question whether this peculiarity be owing to a reigning particular tendency in the fever seen by our author, or whether it is not rather ascribable to the broken down subjects that make up the greater part, perhaps, of the patients at the fever hospital.

Such being the frequency of ulceration of the intestines, we are not surprised to hear of some cases of *perforation* of the intestines. Petechiæ were not uncommon—and doctor Tweedie informs us, that he “had several opportunities of remarking in cases of typhus fever, in which there was considerable disturbance in the brain and nervous system, a great susceptibility of the skin to erysipelatous inflammation. In some of the wards of the fever hospital, erysipelas is almost constantly prevalent. I have seen it spread from bed to bed, at certain seasons; but those who had fever of the typhoid character, were more generally the subjects of it than others. A very trifling exciting cause was sufficient to induce it; if leeches or a blister had been applied, erysipelas very frequently appeared on those portions of the skin to which these applications had been made. When it affected the integuments of the face and head, the brain readily sympathized; and in the reduced state of the powers of the patients, it was impossible to pursue any modification of antiphlogistic measures, nor was the administration of quinine, which had been reported to be of so much practical value in such cases, at all beneficial. Gangrene was common in the skin, particularly at the sacrum, back, and hips, owing to the pressure upon those parts. Sloughing sores also occurred. When we reflect upon the variety, nature, and extent, of local affections at the fever hospital, we may safely conclude that the condition of the

patient, as regards their state before affected by fever; the condition of the *house*, the constant receptacle of diseased bodies, or both, all tends to increase the amount of local affection. So that the estimate of such an institution, does not afford us any thing like a true estimate of what may be expected in private practice, in the United States at least—and we may come to the conclusion, that notwithstanding the fact of more than ordinary amount of local affection in the *hospital*, over that of private practice, still the report of doctor Tweedie, is far from being favorable to the localists, so far as they consider fever as the cause of local irritation and inflammation.

Chapter fifth treats of the *connection of fever with scarcity and privation—Influence of the atmosphere on the prevalence of fever—Local causes of fever—Impure air—Malaria—Contagion.*

Doctor Tweedie says, that many of the cases of fever “evidently arose from some common cause, such as cold, intemperance, fatigue, long-continued watching, &c.; but from the large number received from certain districts of the metropolis, which are seldom exempt from the visitation of fever for any length of time, it is presumed that some local cause exists in such situations.” The fact that fever, as appears by the above statement, and which, indeed, is generally known, arises from different causes, serves to show that we cannot reasonably believe that such very different causes should all make their inroads upon the system in exciting fever, by exciting irritation or inflammation, in any one organ.

Our author states what, indeed, will not be doubted, when he says that it is well known, that scarcity and unwholesome food, lay the foundation of much of the fever among the poor. We should not lose sight of the fact, however, that in this country in general, no such predisposing cause exists, and hence the inference, that as the condition of the body differs, so will the diseases of different individuals—Nearly all the diseases of a febrile kind in this country, are the product of malaria, acting upon bodies of firm stamina, and ordinary sound health, supported by full, or what may, in contradistinction to privation, be termed good living. How important, then, that in looking into European authors, we do not suffer ourselves to be led away with theories, or modes of practice, not sanctioned, or sufficiently tested, among ourselves.

Some unknown condition of the atmosphere, influences the prevalence “of fever, says our author, and that this condition is intimately connected with the combined effects of heat and moisture.” We are told, that a local impure atmosphere, is certainly a most common cause of fever in large cities, and more especially in London, in many districts of which, the poorer classes are densely congregated in small, ill-ventilated cham-

bers." Is this not strongly in favor of the common prevalence of typhus fever, upon which we, with doctor Burne, Armstrong, and others, formed the opinion, that most of the continued fevers of London, are of a typhus or typhoid nature.

"If future observations confirm as a fact, what has sometimes been only conjectured, that periodic fevers arise from vegetable malaria, and the continued forms, from the malaria from animal putrefaction, a very important point in the etiology of fever, will be gained." We think that this question has long since been fully disproved in numberless instances—nothing is more common in epidemics, than to see fevers, of almost every grade and character, prevailing at the same time; and as far as we can judge, as the result of one cause, modified by the peculiar circumstances of the individuals affected. This opinion seems to be the foundation of our author's belief in the contagious nature of more or less fevers. In treating continued fever, he seems to ascribe it more to specific secreted animal matter, than to a mere animal effluvium arising from the decomposition, by putrefaction, of animal bodies, as contended for lately, with no small share of ability, by professor Parsons. We have been led to form the opinion just expressed, from the following remarks of doctor Tweedie—Speaking of malaria in the common acceptance, he says, "it has been a most fortunate loop-hole for some who affect to disbelieve the doctrine of contagion, as one of the many sources of fever"—again, "our knowledge of the production and locality of malaria, is too limited to warrant any opinion being expressed, in decided terms, on its existence in a large district, much less to circumvallate or confine it to a particular spot or dwelling."

On the subject of contagion, the author has given us the following remarks: "though fever originates from a variety of causes, the facts which are almost daily presented to our notice, of the propagation of the disease, by the intercourse of healthy persons with those affected with it, leads to the irresistible conclusion, that fever is contagious."

"The belief which till lately prevailed among medical men, and the community at large, that fever originated almost exclusively in contagion, has, in some measure, retarded our knowledge of its causes, and furnished those who are disposed to question the doctrine of contagion, with powerful arguments. Contagion is, however, only one of its many causes, and may be a powerful source or not, according to various circumstances."

We pass a paragraph or two, which we do not deem particularly important, and proceed to some of the more striking remarks on this hackneyed subject—"I have no hesitation, after an impartial inquiry into the subject, and ample means of inves-

tion, to affirm my decided conviction, that fever will spread by contagion; but that the probability of its extension depends very much on cleanliness, the proper ventilation of the sick chamber, and the purity of the surrounding atmosphere. If a sporadic or solitary case of fever occur in a large well aired house, and the patient be placed in a cool chamber, I would apprehend little danger, under such circumstances, of the disease being communicated to the other inmates. Should, however, a solitary case occur, in a crowded, filthy room, in which a number of persons are huddled together, or where no attention is or can be paid to ventilation and cleanliness, I would almost predict, that a large proportion, if not every one, exposed to the contaminated air, would become affected with the disease. In short, I believe, the contagious principle may be so diluted with pure air, as to be entirely innocuous, just as a mineral acid may, by free dilution, be deprived of its caustic properties."

There is some ambiguity left by using the general term fever, when speaking of contagion, as has been done by our author—if he mean simple continued fever, of which he treats principally we would decidedly object to its having any remote cause, but one, to wit: malaria, arising from the putrefaction of vegetable or animal matter. But says our author, an individual lying in a filthy small room may give out contagion. We say, just so far as the filthiness of the room, or its furniture, bedding, &c. may afford material for the ordinary malaria; and certainly where filthy persons are huddled together, the offensive matters whether in their clothing, or excretions, may produce poison; but this poison is not a peculiar contagion, but mere animal or vegetable effluvium; not a specific poison as in small pox, but atmospherical contamination. Agreeably to our observation, fevers arising from cold, fatigue, &c. even when of the continued form are the result of some local affection—a person being thus exposed to injury is overtaken by an irritation in the lungs, bowels, membranes, or muscular structures, and upon this pneumonic, enteritic, or rheumatic affection we may have general fever.—We are aware that our author will tell us that, we will meet with cases of *general fever from these causes*, but if we admit this fact, it only proves, we think, that, as has been supposed in simple typhus, by our author, we have merely a functional, rather than a vascular disturbance of the brain, so in the case of other affections, the disturbance of some organ, which gives rise to fever, may be merely functional. This seems to be a more rational conclusion, than to admit the supposition of a plurality of causes of one and the same disease.

Doctor Tweedie, seems to think he has made out a statement of facts which incontrovertably prove, that the continued fever

of which he treats is contagious; and that this character is common to fever in Great Britain. We must say, we are still unconvinced; but as the statements upon which our author founds his opinion are particularly *strong*, we shall quote so much of his remarks, as are most striking, and offer a few reflections, upon what we shall quote.

"The London fever hospital is placed in an open space, situated in the vicinity of the metropolis, close to the small pox hospital. Both these establishments stand in the centre of a large field, where the production of malaria is extremely improbable. I can state, from the most authentic sources, that every physician, with one exception, (the late doctor Bateman,) who has been connected with the fever hospital, has been attacked with fever during his attendance, and that out of eight physicians three have died.

The resident medical officers, nurses, matrons, porters, laundresses, and domestic servants not connected with the wards, and every female who has ever performed the duties of a nurse, have one and all invariably been the subjects of fever; and to show that the disease may be engendered by fomites in clothing, the laundresses, whose duty it is to wash the patient's clothes, are so invariably and frequently attacked with fever, that few women will undertake the *loathsome, and frequently disgusting duty*.

"Last summer, a most convincing illustration of contagion occurred. The present resident medical officer was attacked with fever, and it was necessary, in consequence, to appoint some one to perform his duties during his illness.

"The first person who presided for him, resided constantly in the house during the day, but took the precaution of sleeping at home. He was, of course, very much exposed in the wards, in the performance of his duties. These, however, were soon interrupted by an attack of fever, which confined him for a considerable time.

"The duties were undertaken by a medical pupil, who had completed his education, and entered the hospital in the most robust health. He had been taught, and implicitly believed in the non-contagiousness of fever, and ridiculed the idea of any personal danger from residing in the hospital. He performed the duties of house-surgeon for ten days only, when symptoms of severe fever appeared. Unwilling to believe that he had caught the disease, he ascribed his illness to the effects of common cold, till the febrile prostration, and severe determination to the head, obliged him to resign his duties. He was, within 24 hours seized with severe symptoms of cerebral fever, which required the abstraction of nearly 100 ounces of blood, before they were subdued. He passed through a most dangerous attack of fever, and

remained in the hospital five weeks, before he could with safety be removed; though I fear his almost fatal personal illustration has not convinced him of the contagious nature of fever."

Now what does all this prove but that the cause of fever was seated in the hospital. This young gentleman's case, which doctor Tweedie deems so much in point really proves nothing. Thus we are told that all persons concerned in the duties of the hospital became, in succession, victims of fever; then, if the "medical pupil" had common sense, of which no one can doubt, he must have known that he might be affected with the disease that assailed those before him; but in his own case, as in others, he seems to have ascribed it to some common cause, since our author tells us, he had doubts whether he has been convinced, that the disease was communicated to him by contagion—certainly this case proves nothing in favor of specific contagion.—But before we make any further remarks, we shall continue our quotation of our author's facts, and reasonings, to establish the contagiousness of the London continued simple fever.

"The fever hospital is asserted (by a few who deny the doctrine of contagion, but who cannot get over these facts, by any thing like plausible reasoning,) to be surrounded by malaria, to which is ascribed the prevalence of the disease among the medical attendants and domestics; but here again they are met by an unanswerable argument. The small pox hospital adjoins the fever hospital, in fact, is situated within a few yards of it. If malaria prevailed round the fever hospital, it is to be presumed this invisible agent would also produce fever in the medical officers or domestics of the adjoining hospital, both buildings being built on the same lawn. But, on inquiry, I am informed by doctor Gregory, physician to the small pox hospital, that no genuine case of fever has occurred among the medical officers or domestics of the institution for the last eight years, the period of his appointment. From repeated inquiries, I can state, cases of fever among the nurses of other large general hospitals in London are scarcely ever observed; and I can assert, that the nurses of the fever hospital are not exposed to more severe duty than those filling similar situations in other hospitals. The frequent occurrence of fever among the residents of the fever hospital, cannot, therefore, be ascribed to over-exertion in the discharge of their duties, but to exposure to the effluvia from patients laboring under fever. Such an occurrence does not appear when the discharges of patients laboring under other diseases are examined; and shows that there is something peculiar in the secretions of patients, which is capable of producing this disease. Doctor Bateman states, that one of the nurses in the fever hos-

patient was attacked, from imprudently sleeping in a bed just quitted by a convalescent, without changing the bed linen."

The facts reported by doctor Tweedie, certainly make a very strong assemblage in favor of the contagious nature of fever, but certainly are not conclusive. If there be a small pox hospital within a very small distance of the fever hospital, it must be a strange kind of contagion that has not got into the small pox hospital in the long term of "eight years." Verily we know of no disease, unless, as is imagined by our author, it be fever, that is infectious in one house and not in another—surely, it is not more strange, that fever should exist eight years in one institution, than that a disease which is contagious, shall exist in one hospital *attached to another*, and not extend to it. View the case as you will, it is beset with inscrutable phenomena; but surely the gratuitous assumption of our author, that the contagion becomes diluted when it leaves the bedside, too much to convey its poison, does not throw any light on the subject: do we know that such a condition belongs to any contagious matter? Even if we admit it, to a certain extent, still much doubt arises, how every person within a short distance from the fever wards shall escape, when we consider how much persons differ in susceptibility. It is known, that the matter of cow pox virus, may be diluted almost ad infinitum, and still a drop, vastly diluted in water, inserted into the skin, with the point of a needle, will convey the disease, where there is a great susceptibility to the disease, (Coxe on cow pox,) also Spalanzani's experiments with the diluted sperm of frogs.

We are told that "cases of fever among the nurses of other large general hospitals in London are scarcely ever observed. Let us examine this statement a little further—other hospitals admit surgical patients, lying-in patients, venereal patients, &c., now can it for one minute be supposed, that in the vast throng of the London hospitals, that in gathering up these patients, at all seasons of the year, none are conveyed to these places having the seeds of fever lurking in their bodies, and which fever will supervene upon the disease, or accident, for which they may be taken up. And if this be a legitimate conclusion, what becomes of the fever; and if there be fever what becomes of the contagion, seeing that none of the medical officers, or domestics, receive any febrile disease from any of their patients?

We think that our author has clearly proved, that during the period of which he speaks, there was some remote cause of fever; but this subject is still involved in too much mystery to admit, that because there is a succession of cases occurring, that therefore, the disease must be contagious. Thus we are told, by Mr. J. Bell, in his system of surgery, that, "there is no hospital, however, small, airy, or well regulated, where this epidemic ulcer is not to be found (hospital gangrene) at times; and then no

operation dare be performed! every thing stands still! every wound becomes a sore, and every sore is apt to run into gangrene: but in great hospitals especially, it prevails and is real gangrene; in the Hotel Dieu, in Paris, its ravages continued for two hundred years, until that hospital was reformed by the present government of France." What gives rise to these contaminations? not specific contagion surely, but animal effluvia. And why may not animal effluvia be generated in fever hospitals, by the constant succession of patients: for ourselves we have never yet visited any hospital in this country or Europe in which we did not, fail at once, to recognize a most offensive smell, upon entering the several wards, of all the hospitals we have seen, whether they were the surgical, sick, lunatic, or invalid wards. Then, we are to associate with this circumstance, the fact, that fever hospitals will be wanted, because persons are subject to fever in towns—why may not the inmates of an hospital be attacked by fever, from the common cause of the disease, and indeed, it is fair to presume, that the exposure to a contaminated state of the air of a fever hospital, will increase their susceptibility to fever, not because of a specific secreted matter, but because there is a vitiated atmosphere, dependent upon animal effluvia engendered in various ways; which is inseparable from an hospital. We hold then, that a crowded, or badly conducted hospital, may become so filthy as to generate animal effluvia, which may give rise to fever as malaria would, generated in any other way; or where the contamination is slight, the impurity of the air may act as an exciting cause, in bringing into play the seeds of fever, which may have been received in the ordinary way. Or the institution may be filled with a stock of malaria, generated in some concealed spot, and hence a more certain and direct source of fever. We all remember that it was the opinion of doctor Sydenham, that certain noxious effluvia are engendered in the "bowels of the earth." Whether this be erroneous or not, is, we think, not positively decided to the present day: certain it is, that great mystery still hangs over the subject of which the following facts are a strong proof.

In the year 1817, the present writer was appointed physician to the Baltimore Jail, he found in the prison several persons affected with simple typhus, at a time that but little was seen in the city, and was informed that the disease had prevailed more or less for several months prior to his appointment. We continued to have a few cases during the year, but during the succeeding winter, about 40 cases occurred; several of whom died; among them, one of the keepers. These cases occurred in little crops of two, three, or more, at a time, the sick were taken into a separate apartment, up stairs, while nearly all the prison-



ers were down stairs.—When one set would be convalescing we would have another, so that we never had more than 6 or 8 at one time in our infirmary. Some time in the month of March the disease disappeared, as suddenly as if it had been removed by enchantment; nor did the disease appear again, during the two, or three years, that we continued our attendance afterwards.

The circumstances connected with this institution, as relates to any remote cause of fever, are these:—The prison is large and airy, kept tolerably clean, and the prisoners well fed, with sound wholesome animal food, and good bread in abundance. The house is surrounded, at the distance of several hundred feet, with a brick wall; but the circulation of air is perfectly free. The site is high and dry, but near a small creek of clear running water, with clean gravelly shores, without any marsh. Still the gate keepers's family are sometimes affected by intermittent fever. Every thing around the premises and in the prison, were in good order: nor was any thing in particular done on the premises that could account for the cessation of the fever. There was a constant thoroughfare with prisoners coming in, and going out; officers coming and going, also attorneys often calling, and yet, no body took the disease—neither did the relator of this suffer any interruption in his health. We were in the habit, after the disease made its appearance, of white-washing the walls of the rooms of the infirmary, and of the prisoners' rooms; also of washing the floors, with ley of ashes. Now we could never discover any source whatever, to which the introduction of this disease could be attributed, or why it made its disappearance, yet it can scarcely be doubted that, there was some cause within the inclosure, concealed from view, which gave rise to the disease, independent of contagion, since the intercourse, and exemption of visitors was too notorious and common to admit of the belief of contagion, generated by the sick.

In order to allow to the fact of all the washer-women suffering, all the force or importance attributed to it by doctor Tweedie, it should be proved, that the articles to be washed were removed from off the premises.—We willingly admit, that some cause of fever existed in the hospital, so that this fact proves nothing, unless the clothes and women are sent away to some healthy spot. Besides we should not overlook the fact of the poverty of this class of people, by which they are rendered more susceptible to the disease than others, and that of all places about such an institution, the most likely place to overlook uncleanness, is the place appropriated to washing.

We should have mentioned in the preceding paragraph, where speaking of typhus fever in the jail, that during all the time, say about three years that typhus fever prevailed, in these nearly

three hundred persons were confined in the penitentiary, between which, and the jail yard, there was nothing but a brick wall, about 14 feet high, and yet not a solitary case of fever occurred there, of the typhus character; nor any other in the form of an epidemic. Now we do not see any material difference between the situation of these two institutions, and the *fever* and *small pox hospitals*. And as there was a change of circumstances in the one case, that is the disappearance of disease at the jail, so do we believe, that after a certain period, the circumstances which have conspired, whatever they may be, to excite fever in the fever hospital, will also pass away at some period—this appears to be the nature of all febrile diseases; they have certain revolutions, as well in relation to their periods of recurrence, as to their location; and, in our present state of knowledge, all we know certainly, is that the subject is beset with difficulties and obscurities, admitting of no positive explanation.

It is said, on the authority of doctor Bateman, that one of the nurses in the fever hospital was attacked, from imprudently sleeping in a bed just quitted by a convalescent, without changing the bed linen. Surely, none but a thorough going contagionist would admit such an ill founded tale. We see no reason why a man might not take a fever soon after sleeping in a bed which had been occupied by a fever patient; but, we can see no sufficient reason for supposing, that because he slept in such a bed, and afterwards had a fever, that these circumstances, stand in the relation of cause and effect.

Doctor Tweedie, cites the case of Queenbury house, at Edinburgh, which had been converted into a fever hospital, and in which circumstances of a similar nature to those at the London fever hospital existed, and were attended by nearly similar results. We do not deem it necessary to quote the narration of the state of affairs at that institution; but we will briefly notice a fact or two, which seem to require a passing notice.

It is said that about 40 persons were sick about this establishment, in 1824. "If this be the effect of malaria, (says our author) it must be a very virulent and effective one, and it is reasonable to expect, that some record of similar visitations, in the former history of the building would be found." We are told that this house was occupied for a long series of years, by different occupants, which led our author to this conclusion. "If a malaria has existed, therefore, in that house, it must on both occasions, have sprung up exclusively at the times when fever patients were removed thither, and lasted only during their stay." Nothing is more natural, than the assumption, that if fever prevailed so extensively in Edinburgh, as to require the opening of a hospital,

that there would during such epidemic be more liability to the fever at the hospital, at such periods.

If we have not been able to satisfy our readers of the fallacy of many of the conclusions made by doctor Tweedie, we think we have satisfied many of them, that the facts adduced by him, are at best, involved in much doubt.

The sixth chapter is appropriated to the *mortality of fever*. We shall not detain the reader here with more than a very brief notice of this subject. The average mortality of a fever hospital in a large city, where cases are collected under many unfavorable circumstances, will bear no comparison with the average result in private practice. Patients will often be, from low life, living in poverty and misery, and many brought in after some organic derangement has taken place. We are told that "no fewer than 19," out of 73 that died, "died within 36 hours after they were brought into the hospital." In the "*fever hospital*," since the time of doctor Bateman's retirement from the fever hospital, the annual mortality under the different physicians, has varied from one in five, to one in nine and a half." This is truly a lamentable amount of mortality, and shews that we have but little power over fever, unless we apply our remedies very early in the disease. It is in this point of view, only, that we deem our list of mortality useful—it should make us circumspect in our private walks, that we impress on the minds of the people the necessity of early attention; for ourselves, we have no doubt, but there would be a difference of more than one half, in favor of those who would obtain proper treatment during the first three hours, over those who would wait 24 hours before attempting relief.

The seventh chapter contains the *history of fatal cases—morbid appearances on dissection*. The most remarkable fact connected with the history of cases is, that of their being brought into the hospital in most instances several days, or, two or three weeks after the fever commenced. We need not stop to notice the treatment farther than to say, that it was mildly antiphlogistic which indeed, would seem to be the most judicious practice, in cases somewhat advanced in their career. Of the morbid appearances, we need say but little, since these have already been noticed; and they show that the brain, the lungs, and the hollow abdominal viscera, and spleen, were some one, or more of them, affected with inflammation. These observations satisfactorily prove to us, that the stomach, and intestines, are not the seat of fever, much less can we admit after these results, that gastro-enteritis, or irritation of these organs, can be the cause of fever.

The seventh chapter treats of the *treatment of simple fever:—bloodletting—cautions with regard to bloodletting in fever—combination of general and local bloodletting—local bloodletting—*

~~emetics—purgatives—mercury—antimonials—refrigerants—narcotics—cold—treatment of typhus fever: bloodletting—aperient—wine—management of convalescents.~~

The intelligent reader will perceive, that this chapter embraces several topics of the highest interest, which are still enveloped in doubt, and uncertainty; and still are the subject of much difference of opinion, in theory and practice. Such being the fact, we have thought best to postpone our reflections on this chapter, till our next number. Mean time, we would merely repeat, that we hold the little book before us as a work of great value. But especially, we think, the author has been singularly happy in sketching an outline of his views of fever, in his *preliminary observations*. We feel the more disposed to avoid entering upon an examination of doctor Tweedie's views, upon the subjects of the present chapter, because we wish to compare his experience, and his practice, with our own observations and experience, &c. in the fevers of the United States. Neither our time, nor the limits which it seems proper to give to this paper, will allow of our proceeding any further, in our examination of the excellent work before us.

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*Selecta with Remarks.*

MEDICAL.

No. I. *Die Asiatische Cholera in Russland, &c. On the Asiatic Cholera as it appeared in Russia, in the years 1829 and 1830.* From the Russian Official Documents. By D. J. R. LICHTENSTADT, Professor of Medicine, &c. &c. and Physician at St. Petersburg. Haude and Spener, Berlin, 1831. Svo. Pp. 281.—Taken from the *Edinburgh Medical and Surgical Journal*, for July, 1831.

THROUGHOUT the whole diversified objects of medical science, there is perhaps none of so much interest at the present moment as the Asiatic or Epidemic Cholera. Its extensive diffusion in the course of a few years over a great part of the eastern world, its almost unexampled mortality, the appalling swiftness with which it brings its victim to the grave, and the mystery which continues to hang over the cause of its origin and progress,—have for some time rendered it an object of attraction to every

scientific inquirer who confines not his view to what passes within the narrow circle of his immediate observation.

But in recent times it has acquired even higher claims on the attention of European physicians. During the few first years after it attracted notice in the East, its devastations were confined to the British eastern empire and some conterminous states. But afterwards vague rumors reached civilized Europe of its advance westward; at last in the autumn of 1829, it suddenly appeared with violence at the eastern verge of Europe, on the Tartar confines of Russia; a year afterwards it rapidly advanced nearly 800 miles westward and arrived at Moscow; and now it is well ascertained that it has made its appearance at Warsaw, about 700 miles still farther west. In all this long course, whatever may have been its mode of propagation, it has distinctly shown itself to be comparatively uninfluenced by various circumstances of locality and season, which lessen or extinguish other epidemic as well as endemic pestilences. It is not improbable, then, that the western confines of Europe may ere long be visited in turn; for the prolongation of its course for eight hundred miles more in the direction it has hitherto traversed would bring it almost to the gates of Paris. In the East it has crossed wider seas than divide these islands from the continent of Europe. If it appears among our neighbors, then, we cannot reasonably expect to escape a similar visitation.

We may indeed comfort ourselves with the reflection, that the easier condition of the lower orders, and superior state of general civilization in the western part of Europe will prevent its farther progress. And it is undoubtedly true that for a long time these advantages have protected western Europe from the inroad of epidemic diseases, or greatly limited their ravages. But there is, we repeat, a mystery in the mode of propagation of cholera which, in whatever way it may eventually be solved, has hitherto allowed the physician only to discover that it is not exactly amenable to the laws which govern the extension of other diseases, either of a miasmatic or of a contagious nature; and at all events we fear that in the documents now before us some reason will be found for doubting whether comfort and civilization furnish a sufficient barrier against its invasion.

These considerations, independently of others of a more purely scientific nature, which it would be useless to specify, render it an object of extreme interest to the profession and public in every European state to observe the progress of the disease, as made known by authentic documents. The official correspondence of our medical officers in India, to which ample justice has been done in this Journal, has made us fully acquainted with its phenomena as it presented itself in that part of the globe.

Since the publication of their correspondence little new intelligence has reached this country on the subject, beyond a few vague rumors of devastations committed by it in the countries bordering on our Indian possessions, and more recently some scattered notices of its prevalence in various parts of Russia in its progress westwards, communicated chiefly through the medium of the Academy of Sciences and Academy of Medicine at Paris. At length, however, an authentic account has been published of its first entrance into Russia, and subsequent diffusion through a part of that empire; and the original official documents have been rendered generally accessible by the activity of *Professor Lichtenstadt* of St. Petersburg, who in the work now in our hands has translated into German all the material parts of the reports. We have taken the earliest opportunity of bringing this interesting treatise before the reader.

The work consists of two parts. The former is a translation, with occasional abridgement, of the whole Russian official reports, forty-two in number, on the cholera as it prevailed in the province of Orenburg, in 1829-30,—taken from a publication by the Russian government which appeared in the course of last year. The latter is a similar translation of various documents, official and private, illustrative of the second and more violent epidemic which appeared in Georgia, in 1830, and in a short while traversed the Russian empire as far westward as Moscow. The documents from which the author has collected his materials are obviously inferior in accuracy and minuteness to those published by our Indian government on the same subject. In some respects, however, especially in the statistical data supplied, they are perhaps superior; in every point of view, they are full of interest; and in one particular they are especially worthy of attention, as, in opposition to the sentiments entertained by almost every practitioner who has witnessed the East-Indian cholera, they have led the supreme medical board of Russia to espouse unreservedly the doctrine of the contagious origin of the disease, and whether this opinion be right or wrong, will also lead every European state to take measures against its introduction, as if it were really of a contagious nature.

For some years after the propagation of cholera to the north-western portion of British India, little authentic intelligence was received of its progress elsewhere. It appears to us unnecessary to trace the scanty data which the casual notices of travellers and others have furnished on this point. The labor would not be repaid by the results.

A fact of some interest, however, has been stated by Mr. Fraser, in his travels in Persia, relative to its existence in that kingdom. He mentions that so early as the middle of July, 1822, it

raged with great violence, to his personal knowledge, in Tabreez, the capital of the province of Azerbaijan, about N. Lat. 38½ and E. Long. 48, and distant scarcely 150 miles from the Georgian frontier of Russia, that it likewise prevailed much in the country around; and that it soon spread over an interval of 200 miles to Reschd or Résht, a port on the southern shore of the Caspian, and the chief city of the Persian province of Ghilan. Among the numerous anomalies presented in the course of the extension of this strange pestilence, it is not perhaps the least remarkable, that it should have so soon spread with rapidity and raged with violence in these districts, and nevertheless did not appear, or at all events prevail to any extent, or advance to any material distance across the adjoining Russian frontier, till eight years afterwards. In one of the Russian reports, indeed, the introductory report of the medical council of St. Petersburg, it is said to have shown itself in previous years at Astrachan, on the north shore of the Caspian, where, as will be seen presently, it broke out with violence in 1830. But the report is extremely brief on this point; and at any rate there seems no doubt that it was not till August, 1829, that the disease attracted particular attention in the Russian empire, and this too in a different quarter from the parts first threatened.

So early as August, 1823, the supreme medical council, alarmed at the near approach of the cholera, published Instructions for the Local Boards, to enable the physicians in the frontier governments, to recognize, check, and treat the disease. But notwithstanding this precaution, it seems to have been misunderstood for some little time after its first appearance, although it certainly broke out at once with all the characters and virulence of the Indian cholera.

The first well ascertained case of cholera, according to the official reports, occurred on the 26th August, 1829, at Orenburg, the capital of the province of the same name, situated on the Tartar frontier, 400 miles north of the Caspian, and about 1000 miles, in a direction somewhat to the east of north, from Tabreez and Reschd, where it prevailed extensively in 1822. On that day a man was brought into the military hospital, affected with yellow vomiting, diarrhœa, intolerable pain of the belly, sunken features, blueness of the lips, coldness of the extremities, cramps, imperceptible pulse, extreme exhaustion, and excessive anxiety; and notwithstanding vigorous treatment, founded on the notion that the disease was inflammation, this patient died within twelve hours. No other case occurred for a week afterwards, when a woman suddenly died in the town, of suspicious symptoms, which were believed to be of the same nature. In a week more, on the 8th of September, a third person, a joiner, died of twelve

hours illness. As his case is a very striking one in many respects, and completely dissipates the doubts entertained by some of the identity of the Russian disease with the eastern cholera, we may here give it in detail, as it is related by doctor Sokolov, the surgeon who attended the man.

"The disease began at two in the morning, with a dreadful purging, which returned every minute. Although the weather was cold and wet, the patient went out of doors to obey the calls of nature, barefooted and undressed, and without any precaution. About five o'clock he was without feeling, quite powerless, and affected with constant cramps. At six I found him again sensible, but with sunken pale-blue cheeks, dimness of the eyes, coldness of the feet and hands, and bedewed with clammy sweat. He was tossing about, and complaining of trembling of the hands, a sense of oppression at the pit of the stomach, and intolerable thirst. The vomiting, which, according to his own account, commenced much later than the purging, was at this time less frequent than it had been; but the alvine discharges continued to recur incessantly, and were passed involuntarily. The exhausted, powerless condition of the patient, in particular his completely imperceptible pulse, both at the wrist and over the heart, the stiffness of the limbs, the coldness of the tongue, belly, and præcordia, left me no hope of his recovery. The administration of opium with oil of peppermint and ether checked the vomiting only for a short time; anodyne clysters had no better effect on the diarrhœa; and warm frictions, spirituous drinks, and even the hot bath were resorted to without success to restore the temperature and bring back the pulse. An unsuccessful attempt was in the last place made to draw blood from a vein; and soon afterwards the man expired. Twenty minutes after his last breath, and when the corpse had been already washed and dressed, it was affected all at once with frightful movements. Convulsive motions took place in the hands and feet, like those excited by galvanism, commencing first in a few muscular fibres, especially in the neck and thighs, extending in a vermicular manner, and suddenly producing bending of the head, and agitation and elevation of the feet. These spasms continued with intervals for ten minutes, becoming in the end faint and rare. The same phenomena, though in a less remarkable degree, were observed on another occasion only, but so long as six or seven hours after the termination of the symptoms of the disease."—P. 115.

On the 9th two other cases occurred, on the 10th two more, and after this the disease became rapidly very prevalent. It was

\* These muscular contractions after death were also occasionally observed in the cholera of the East Indies.



not till the 10th of September that its true nature occurred to the physicians of Orenburg, who had previously considered it inflammation of the intestines. Its subsequent progress will appear from the numerical statements given in different reports of the Orenburg Council of health. Between the 9th and 25th of September, 67 cases occurred, of which 18 were fatal. Between the 9th and 30th of the same month the number of cases was 132, and the deaths 22. Down to the 21st of October, the total cases were 747. In the city and suburbs the disease had disappeared entirely on the 20th of November; and from first to last 1100 were seized, and 200 died. When it is added that the population amounts to about 11,000 inhabitants, a clear idea will be conveyed of the extent to which the epidemic prevailed.\*<sup>1</sup>

It was not till the 23d of September that cases began to appear in other parts of the Orenburgh government; and the first place in which it was known to exist was the fortress of Rasūpna, 60 miles\* west of Orenburg. On the 30th it broke out at Berdsk, a small station 12 miles north of Orenburg, and between the 3d and 8th of October it also appeared in various villages and forts to the west and southwest, at a distance of between 12 and 33 miles. It would be tedious to follow the particulars of its course as it continued to spread from this focus. It is sufficient to mention that from Orenburg it extended about 200 miles northward, about the same distance north-west, and about 60 westward; that the district of country thus visited measures about 240 miles by 200; and that this space was traversed between the 26th of August; and the 6th of February; but that the greater part of it was visited before the middle of November. On the 23d February, the disease was every where extinct. In its

\* [By turning to page (142 of the Ed.) we have the following strange statement—"local causes appear to him inadequate to account for the disease prevailing epidemically, for two seasons previous to 1830, were much more favorable than it is to the extension of a disease of local origin; as the country was much flooded." We should be inclined to reverse this conclusion—the overflowing of some countries would probably show their deleterious effects sooner, but can it be doubted, that if the country was extensively flooded, that the miasm thence arising might not make its appearance till a year or two after.—The disease is obviously not the result of common miasm, a slower elimination of the poison, owing to a slower decomposing process in a cool climate seems to have taken place. Besides, it is most probable, that in any case where we might submit lands containing the material of miasm to water, it would require sometime before a sufficient quantity of miasm was formed to contaminate the atmosphere, so far as to give rise to an epidemic. It is only where there is material already deposited that we may expect a more speedy escape of gases, after the grounds have been deluged.]

\* In substituting English for Russian measure, we have taken the Russian verst as equal to two-thirds of a mile.

where it affected 2200 individuals, of whom 800, or nearly a fourth, perished. The proportion which this bears to the population is not stated; but from various reports it would appear that in towns the proportion was generally about the same as in Orenburg.

The symptoms of the Orenburg cholera are well exemplified in the case already quoted from the experience of doctor Sokolov. It is needless to dwell on this topic, with the view of proving the identity of these symptoms with those remarked by British practitioners in the cholera of the East Indies. All the Russian reports unite in, showing that in the generality of cases there was the same excessive evacuation, upwards and downwards, of a watery turbid fluid, the same collapse of the skin, coldness of the surface, sinking of the pulse, failure of the strength, lividity of the face, spasms of the muscles, sense of pain or pressure in the region of the splanchnic plexus of nerves, extreme despondency, entireness of the mental faculties, and blackness and inspissation of the venous blood; that in Russia as in Hindostan some instances occurred of rapid death, with collapse and spasms, and without vomiting or purging; that in other instances chronic irritation of the bowels continued for a long time after the violence of the disease was broken; and that sometimes too symptoms of cerebral congestion supervened on the violent constitutional disorder which accompanied the intestinal symptoms, and quickly terminated in coma and death when not properly counteracted. The ordinary duration of the disease in fatal cases was from twelve to twenty-four hours. A few individuals were attacked twice.\*

\* [The subject of susceptibility seems to be too much neglected; we have briefly touched upon this subject in our present number, page 467. Small pox all admit to be a contagious disease: once introduced into a place it spreads from individual to individual, till all subjects who come within its reach have suffered, then it ceases—why? because there remains none who are liable, since the disease has destroyed the susceptibility, without which it can never exist—so of all diseases known to be contagious: and there are many of which it is very questionable, to say the least, whether they be contagious, that have this property, that is, they do not effect the same persons twice. This provision, by a kind providence, is the reason why contagious diseases can come to an end. We must admit, as a very rare occurrence, that small pox has affected the same person twice, but never at short intervals—on the contrary, years; mostly many years before the recurrence. In a word, if diseases were contagious, and did not destroy the susceptibility to their recurrence, the world must soon be depopulated. In the name of common sense, if the contagion can run from individual to individual, how shall it ever be checked in such a town as Moscow: by the time those who were first seized had recovered, those coming after them a week or two, prepare fresh doses of poison, how then can the disease be checked? We shall discuss this point more fully as we proceed.]

The Russian reports have added nothing to our knowledge of the morbid appearances already communicated by the medical officers of the East Indies. In fact, this department of the inquiry seems to have been superficially studied by the physicians of Orenburg. Along with the usual signs of internal venous congestion, most of them agree in saying, that marks of inflammation were found in the intestinal canal. Several, however, state that traces of inflammation were far from being invariably present; and on the whole, since they do not particularly describe the appearances set down as inflammatory, it is reasonable to conclude, that the supposed signs of inflammation were nothing else than the redness and blackness of the mucous coat of the intestines, which are apt to occur whenever the blood is by any cause driven inwardly in unusual proportion.

The treatment pursued in the Orenburg epidemic may be likewise dismissed in a few words. The Medical Council of St. Petersburg had recommended the physicians of the districts where the cholera might appear, to hold in view the practice recommended by the results of British experience in the East: and accordingly, after the disease was fully recognized, we find the practitioners of Orenburg withdrawing blood from the arm, and then administering scruple doses of calomel, with opium or other antispasmodics, and stimulating the external surface by friction and the application of heat in every variety of form. And it is a pleasing fact, which the reports now before us fully substantiate, that wherever medical assistance was easily procured, for example in towns, the mortality of the disease was in by far the greater number of instances comparatively low, while it was commonly very great in the small villages and other places where it was for the most part impossible to procure medical advice, till the disease was too far advanced to admit of much impression from the employment of remedies.

The difference in the mortality at different places is very striking and well worthy of notice. In the forts of Rasüpna, Nischne-ozernaja, and Iletsk, situated within 60 miles west and south-west of Orenburg, of 621 sick only 33 died, or about one-tenth. In four villages situated in the circle of Orenburg, and within 60 miles of the city, of 240 sick 138 died, or above one-half. In two other villages adjoining those now mentioned, and in three others in the circle of Menzelinsk, at the northern border of the unhealthy country, 69 died of 116, being a mortality of nearly three-fourths. The total average for the whole district which suffered was about a fourth; and this appears also to have been nearly the proportional mortality in the larger towns. On the whole, the mortality seems to have been less wherever a garrison was stationed, a fact which is easily accounted for by the su-

terior civilization in the neighborhood, as well as the more immediate access to medical assistance, and the more rigorous enforcement of the municipal regulations which were called for by the emergency of the case. There is a singular circumstance, however, regarding the relative mortality in civil and military life in the city of Orenburg, which is distinctly pointed out by the statistical returns, but which is neither noticed nor accounted for in any of the official reports; and this is, that the mortality was greater among the soldiery than throughout the inhabitants at large. Of the 11,000 inhabitants 600 are considered as of the military class; and of these 299 were affected, and 79 died, or more than a fourth. While among the remaining inhabitants 801 were attacked, and only 121 died, or very little more than a seventh.

We come now to the most interesting of the topics embraced by the Reports, the mode in which the Orenburg cholera originated, and subsequently extended itself. This subject, on account of its great importance, deserves to be considered at some length.

The reader is probably well aware that by an overwhelming majority of the British medical officers, who have witnessed epidemic cholera in the East Indies, this disease is considered not to be of a contagious or infectious nature,—that is, not to be communicable from man to man. A few incidents occurred which excited suspicions in the observers that it really might after all possess this property. But scarcely a single person has advocated the doctrine of contagion with any earnestness. It is well, perhaps, that in the East Indies matters should remain in this respect as they are. For undoubtedly many facts were observed there apparently incompatible with all we hitherto know of the phenomena and progress of contagious diseases; and the facts of a contrary nature are so scanty, that in the face of the lamentable effects which the adoption of the doctrine of contagion would have on the native population; it would be rash and unwarrantable to allow them much weight in the decision of the question. The sequel, however, will show that such facts, meagre and scattered as they may seem, ought not to be lost sight of altogether.

Notwithstanding the almost unanimous and earnest recommendation of British practitioners not to consider the cholera contagious, the Russian government appears at an early period to have been alarmed by accounts received of its progress in the interior of Persia; and arriving at the conclusion, that its mode of propagation was extremely suspicious, they resolved that the intercourse with the frontier provinces should be subjected to a quarantine of fourteen days for persons, and to the usual restric-

tions enforced in times of plague in regard to goods. As the rumors of the devastation committed by cholera in central Asia, however, died away, it is probable that the quarantine was imperfectly enforced.

But whether enforced or not, it was found quite impossible to trace the introduction of the disease into Orenburgh to importation from the East. After it broke out in Orenburgh, information was received that it had been prevailing in several parts of eastern Persia, more especially in the province of Khorazan, in various districts of Bucharia; above all, in Chiva, a city in the province of Kharzm, situated on the Jihon, a stream which falls from the south into the sea of Aral, and where some of the Bucharian caravans assemble previous to crossing the great Steppes of the Kirghis-Kaisaks. Hence, among the physicians and civil governors of the Orenburg government, attempts were made to trace the introduction of the cholera to the caravans which arrive at Orenburg from central Asia about midsummer. The strictest investigation, however, which could be made entirely failed in attaching any probability to this notion. The last caravan which arrived at Orenburgh, reached the place on the 22d July, thirty-five days before the first case of cholera occurred there; the individuals composing it were all in a good state of health; and in crossing the Steppes, which is accomplished in from 33 to 90 days, they lost only one companion, whose disease could not be ascertained, but who died after being twenty days ill. It is clear, therefore, that the disease could not have been introduced by any of the persons belonging to the caravan. It was scarcely less certain that its introduction could not have been owing to the goods conveyed by them. For at every resting-place it is the practice of the merchants to unpack their merchandize, so that the whole individuals of the caravan must have been freely exposed to the effluvia; yet none were taken ill. Besides, the Bucharian merchants and their servants, laughing at the suspicions of the Russians, exposed themselves with perfect readiness in every possible way to the exhalations from their bales and packages. Neither could it be discovered that any person in Orenburg was attacked by the cholera, who had purchased goods of a suspected nature brought by this caravan. When to these facts it is added, that at Orsk and Troitsk, two other frontier towns, where the eastern caravans likewise arrive during summer, cholera did not appear at all, we conceive it is distinctly made out, that importation in this manner was out of the question.

With somewhat greater appearance of reason, the introduction of cholera was supposed by some of the inhabitants of Orenburg, to have been accomplished through means of their im-

mediate neighbors to the East, the Kirghis-Kaisaks, from whom the government of Orenburg is separated merely by the river Oural. On this point we shall quote the following judicious remarks of doctor Sokolov.

"Finally," says he, "the introduction of cholera into Orenburg has been ascribed to our neighbors of the Steppes, the Kirghis. Their intercourse with Taschknet, Bucharja and Chiwa is well known; so that if the disease was introduced into any of these districts from Caubul or Khorazan, it must have been communicated to the Kirghis. Their own accounts, too, though discordant in many respects, supply clear, convincing proof that cholera has shown itself in some of their hordes on the Ilel and Emba, (the former of which streams joins the Oural from the southwest, a little below Orenburg, while the latter river runs parallel to the Oural, at a distance of about eighty miles, and flows like it into the Caspian.) But their constant distrust of us, and their suspicious closeness are a great obstacle to our procuring distinct evidence of the form and extent in which the disease prevailed in this wandering semibarbarous race.

"Besides, it is their constant custom to abandon all those to their fate who are sick or suspected to be ill, (for example, of small pox, measles, or inflammatory fever,) and to wander to a distance from any place where such diseases have shown themselves,—which is in fact the most effectual means they could take to check their dissemination, and serves equally to lessen the number of victims, and to withdraw them from observation. Along our whole confines the Kirghis are constantly employed bartering goods with us during the summer and harvest, their principal articles of commerce being sheep, camblet, felt, and skins. But if the Chiwa and Bucharian caravans could not have introduced cholera into Orenburg, because it was actually never introduced into Orsk and Troitsk, how was it possible for the Kirghis to introduce it into Orenburg, without also introducing it into the numerous stations on the frontiers with which they maintain an equally constant intercourse?—P. 123.

It appears then that the introduction of cholera from the eastward is rendered improbable, and at all events that the surmises on this head never received confirmation from the strictest inquiry which it was possible to institute.

Quitting this subject, however, we must now proceed to consider the more important question, how the disease, when once introduced, propagated itself from place to place. A variety of views have been taken of this question. At present the general opinion in Russia is, that the disease communicates itself from man to man; but this was far from being the general opin-

idn of the Orenburgh physicians, who personally witnessed its progress. Others have conceived that it arose from terrestrial miasma,—an idea which will be presently seen to be quite untenable. Others again have thought that a superabundance of the usual causes of common cholera, concurring with some peculiar epidemic state of the human constitution, was sufficient to account for its prevalence; and finally others, bewildered by the difficulty of explaining every incident in its history according to any of these views, have resorted to the vague, hypothetical notion of a peculiar electric state of the earth or atmosphere. In what follows we shall not pretend to discuss at length each of these opinions, especially those of a purely hypothetical nature; but it will be requisite to consider fully what grounds exist for considering the disease as originating in contagion or terrestrial miasma.

For some time after the cholera appeared in Orenburg and its vicinity, the physicians there not only did not entertain the idea that it was contagious, but likewise encountered many facts which appeared to them incompatible with this opinion. But in the subsequent progress of the epidemic, facts of a contrary nature occurred, so that before it terminated, many were staggered in their opinion, and a few became decided contagionists. We shall proceed to consider the evidence which the reports supply in favor of its contagious nature, and which, as will presently appear, amounts to presumptive, but by no means very strong proof.

An important fact which appears favorable to the notion of contagion is that the disease broke out in some places very soon after the arrival of persons ill of cholera, who had recently left districts where it prevailed. Several instances of this are reported. Thus, the first place where cholera appeared after it broke out at Orenburg, was in the fortress of Razūpna, sixty miles to the westward, down the course of the river Oural. Here it commenced on the 19th of September, passing over several forts and villages on the highway, which, nevertheless, we shall presently find, were attacked subsequently; and it is said, that the first person attacked was a vintner's servant on the very day he arrived from Orenburg, and that the disorder seized several of the garrison four days afterwards.—Again, in the fortress of Iletsk, 42 miles to the S. W. of Orenburg, and on the verge of the Kirghis-Kaisak Steppes, the disease did not break out till the 2d of October, and first appeared soon after the arrival of a soldier, and a soldier's wife, who were taken ill on the way from Orenburg, and died on the day after their arrival at Iletsk. Three days after their death three individuals took ill in the garrison

one of whom was the husband of the woman.\*—Another incident of the same nature occurred towards the close of the epidemic at Caramala-Gubeewa in the northern part of the Orenburg government. This village had remained healthy till the 14th of January; but about this time a peasant arrived from a village 24 miles distant, where the disease prevailed, and died of it immediately after his arrival; whereupon this man's nearest relations were attacked; and immediately afterwards the disease spread among the inhabitants, so that in a short time 41 were attacked, and 20 died. Besides these special facts, there are also some general, but rather vague, statements in the Reports, to the effect, that in no instance did a person go from a district where the cholera prevailed to another where it did not, and then take it, without the disease soon afterwards attacking many people in the neighbourhood.

A remarkable circumstance, also favorable to the opinion that the cholera was propagated by contagion, was the peculiar irregularity of its course. Diseases which are supposed to depend on peculiar states of the air, and especially cholera, as it prevailed in the East Indies, are usually believed to advance with considerable uniformity in the same directions. And this rule applies to the Orenburg epidemic considered on the great scale, its course being distinctly westward and northward. But there were several important exceptions, which undoubtedly render its progress more like that of a contagious disorder.—Thus, we have seen that in arriving at Razüpna from Orenburg, numerous forts and villages on the high road were passed over. But in no long time the disease began to retrace its steps along the road eastwards. It was at Razüpna on the 19th September. On the 6th October it broke out at Nischnei-Ozornai, 14 miles to the eastward of Razüpna; on the 8th October at Tatischtscheva, 14 miles farther east; and on the 29th October at Ritschkova, 14 miles farther east still. Then it appeared to return in its original direction to Zubotschistka, a little to the westward of Tatischtscheva, where it broke out on the 9th November. And again it resumed its backward course towards Orenburg, and on the 19th January, broke out for the first time at Tschernoretschinsk, a fort situated 14 miles west from that city.—In like manner, proceeding northward, it arrived in the village of Bikkulov, 60 miles from Orenburg, on the 28th September, having affected no

\* [We are told in this paragraph, that a winter having died of the disease who had been to Orenburg, "the disease seized several persons four days after—and again—a soldier and his wife having died just after returning from Orenburg, three persons were taken ill of cholera three days afterwards. We would ask, is any disease, known positively to be contagious, capable of extending itself so speedily from one individual to others.]



other place on the road. Then on the 5th October it appeared at Seitovskoi, only 16 miles north of Orenburg, and on the 14th October at the town of Sackmarsk, 16 miles farther north, and consequently 26 miles south of the first village attacked. On the same day it also appeared at Sarmanaeva, 24 miles north of Bikkulov; and proceeding in a northern, or rather north-westerly direction, it arrived at Bugulma, a considerable town, 160 miles from Orenburg, on the 7th November. In the latter part of its progress, however, it passed over nearly 70 miles of the road, leaving many villages entirely free. But then it appeared again to retrace its steps, breaking out with violence at Tiriss-Usmanova, 30 miles from Bugulma, on the road back to Orenburg, so late as the 5th December, and subsequently attacking several other villages in the vicinity of this place.

Another fact favorable to the views of the contagionists is, that in some places the disease never appeared, although it raged all round, apparently because the inhabitants cut off all intercourse with the surrounding country, except under the restrictions of a rigorous quarantine. Few examples, however, to this effect are stated by the reporters. Indeed the only one worthy of mention is a single instance which occurred when the disease broke out, as already mentioned, at Caramala-Gubeewa. Some Russian peasants living together, scarcely a hundred yards from the village, shut up their hamlet on the first intelligence of the disease having appeared in their vicinity, and enforcing a strict quarantine during the prevalence of the epidemic, entirely escaped its visitation.

But the arguments now stated, when fully investigated and compared with other contradictory incidents, will be found less conclusive than they appear to be on first examination.

As to the communication of the disease from Orenburg to Iletsk and Razulpna, and to Caramala from an adjoining village, by means of individual travelling from a diseased to the healthy district,—it is, singular, that throughout the reports generally, satisfactory information is seldom given on the question, whether the residents first attacked in the previously healthy places were exposed to the alledged contagion. There is indeed one strong fact of the kind explicitly stated, in regard to the extension of the disease at Iletsk, by the staff-physician, doctor Schimanski. He says he was able to trace the progress of the disease in the first eight cases:—The husband of the woman from Orenburg took ill three days after her; and about the same time also, two girls who lived in the immediate neighborhood of the soldier, and who visited him soon after his arrival from Orenburg. The aunt of these girls, who nursed them, was next attacked; and from her it passed to her own two sons. This, however, is the

only fact of the kind which is related with any precision. As to the extension of the disease at Caramala, as we have already stated, it is merely observed in general terms, that the first persons seized in the village were the relations of the man who was supposed to have brought it from an infected district. And with respect to the interesting occurrence at Razûpna, where several of the garrison took ill four days after the death of a man who was seized immediately on his arrival from Orenburg, it is distinctly mentioned in one of the reports by doctor Schumov, that, of the individuals who visited this person, not one was attacked; that of those who were attacked not one had been exposed to the contagion supposed to have been introduced by him; and that its extension in the garrison was not prevented by an early and rigorous quarantine.

Next, as to the irregularity of the course pursued by the disease,—while this is at variance with the idea of an atmospheric cause, it is equally true that some facts relative to its course are not easily reconcilable with the notion of contagion being its only cause. We have seen, for example, that at Tschernoretschinsk, the disease appeared on the 19th of January, after having passed over this place four months before in its course westward. But it is also particularly worthy of notice, that in all the towns and villages within a moderate distance, but one, the disease had completely disappeared before the end of November, and that in the only village where it continued longer, Cardialovka, at a distance of 20 miles, it had ceased on the 6th December, or more than five weeks previously. Now all the facts hitherto collected in favour of the contagious nature of cholera, show, that if contagious at all, the period during which the contagion remains latent in the body is very short. So strongly indeed was this shown to be the case, that the Russian government, as already mentioned, limited the quarantine to fourteen days for the person. In all the cases where the disease broke out soon after the sickening of a person newly arrived from a diseased district, it appeared among the residents in less than a week. If the contagion, which, in the majority of instances remained latent in the body four or five days only, could in some instances have remained latent for five or six weeks, the disorder, as the quarantine for persons was limited to fourteen days, ought to have extended itself over a much greater extent of country, and travelled with far greater rapidity. It is not easy then to conceive how the village of Tschernoretschinsk could have received the disease by communication from infected individuals; neither is it stated that any such communication was actually traced; and as to communication by infected goods, it does not appear that the commencement of the disease in any part of the

Orenburg government was supposed to have been refrangible to such a cause.

The last argument in favor of contagion,—the immunity enjoyed by certain small districts in the heart of an infected country, whenever intercourse was cut off with the places where the disease prevailed,—is certainly a fact of much interest and some weight. At the same time so many instances of similar immunity occurred where the fact of free exposure to the supposed contagion could not be called in question; and so many instances also occurred where the disease spread in defiance of the quarantine, that one is tempted to ascribe the escape of the shut up districts, which, after all, were very few in number, to accident, or at least to some other cause than the suspension of human intercourse.

Several examples occur throughout the reports of entire bodies of people remaining exempt from the disease, although exposed to it in circumstances in which escape would seem next to impossible, if it really propagated itself by contact or exhalations from the sick. We shall be content, however, with relating a single instance only, which is the strongest of the kind we have remarked in the reports. It is mentioned by a staff-physician, doctor Smirnov. During two months while the disease prevailed at Orenburg, and 299 patients were admitted with cholera into the military hospital, the personal attendants on the sick remained entirely exempt from the disease. They consisted of one hospital assistant, six pupils, as many Baschkir lads, and fourteen hospital servants, in all 27; and their duties were to perform bloodlettings, apply leeches, poultices, and frictions, and administer baths and the like, so that they were compelled to be constantly breathing the exhalations from the bodies and clothes of the sick, as well as to touch and handle them. Besides, the same immunity was enjoyed by certain officers and subalterns who lived in this hospital, and were in the sick-wards once a day, besides being at other times in constant communication with the hospital assistant and the pupils. Farther, the washerwomen of the hospital likewise escaped,—a class of individuals, who, it is well known, are extremely apt to suffer from contagious diseases. One only was attacked with cholera; but she washed merely the clothes of the officers, none of whom had been affected before she took ill. Lastly, doctor Smirnov, and his colleague, doctor Sokolov, were in constant attendance on the patients affected with cholera, but did not suffer. This immunity enjoyed by the medical and personal attendants of the sick in the hospital of Orenburg is exactly conformable with what had been previously observed in the greater number of the hospitals in the East Indies.

It is, we conceive, in vain to object to the preceding fact as evidence against propagation by contagion,—that the contagion of cholera, like other contagions, does not affect every individual exposed to it,—that some other concurring circumstance is requisite to enable it to take effect. This objection is a sufficient explanation in the case of certain persons escaping in a family or congregation of individuals, some of whom suffer. But can it be held valid where a large body of persons, of all ranks in life, and all freely exposed to the alleged contagion for two entire months, escape to a man? Certainly not. The immunity enjoyed by the officers and servants of the military hospital of Orenburgh is surely sufficient to prove, that *at this period of the epidemic* the disease could not propagate itself from the sick to the healthy.

It is obvious, then, that there are insuperable difficulties in the way of the opinion, that the Orenburg cholera, of 1839, at its commencement was a contagious disease, or at least, that it propagated itself after the manner of known contagious diseases,—for this is perhaps all that strict induction entitles us to conclude from the facts. And accordingly, few of the medical reporters of the Orenburg government have espoused the doctrine of contagion; and those who have adopted it, did so with hesitation, and not till towards the close of the epidemic, when they were surprised to find, that it was not more obedient to the laws which govern the progress of disorders of a miasmatic origin, than it had previously shown itself to the generally received laws of contagious diseases.

This leads us in the next place to inquire, to what other cause besides contagion the propagation of the Orenburg cholera can be ascribed; and, in particular, whether it can be reasonably ascribed to Terrestrial Miasma. But it will be no difficult matter, we apprehended, to prove, that, if the circumstances which accompanied its dissemination are at variance with the received laws of contagion, there were also incidents of frequent occurrence throughout its progress, which are still more incompatible with its cause being of the nature of terrestrial miasma.

Orenburg, the city where it first made its appearance, seems, from the description of doctor Sokolov, to be one of those chosen spots on the globe, which the physician would select for its exemption from all the circumstances of locality that are apt to engender endemic diseases. It is situated in an extensive plain, abounding in undulations to diversify its surface, destitute of lakes and marshes, traversed by clear streams, and not more wooded than is required to beautify the landscape. It is built on the higher bank of a fine river, the Oural, which runs in a defined channel, and presents no bogs or miry meadows at its margin.

It is liberally and cheaply supplied with all the necessaries of life, in particular with grain, fruits, and butcher meat of all kinds, and the river abounds in fish.

"On account of its position," says one of the reporters, "its regularity and cleanliness, it presents not the slightest facility for the engendering of disease. One could not wish for a more choice site for the maintenance of human health. This is abundantly shown by the small number of endemic diseases to which it is exposed, and their rare appearance, as well as by the great age attained by many of the inhabitants."—P. 99.

The whole territory comprehended in the government of Orenburg is more or less of the same nature; and in particular, the locality of the greater towns appears uniformly well chosen. How any baneful terrestrial emanations could be engendered in such a district it is impossible to imagine.

Another fact still more incompatible with a terrestrial origin is the important circumstances observed for the first time in the Orenburg epidemic—that its progress was not arrested by the cold of winter. In the East Indies the observation had been already made, that the appearance and propagation of cholera were by no means invariably connected with any particular season or kind of weather. In Russia, it has been further proved to prevail in defiance of intense frost. In most parts of the Orenburg government it continued to prevail long after the frosts set in: in many districts it went on with unabated violence when the temperature was far under zero of Fahrenheit's scale; and in some districts it actually made its first appearance when the thermometer was as low as  $-29^{\circ}$  F. Thus in Tiriss Usmanova, a Mahomedan village above 130 miles north-west from Orenburg, containing about 700 inhabitants, the disease broke out for the first time on the 5th December, when the thermometer was at  $-29^{\circ}$  F.; under same degree of cold it prevailed till the 23d of the same month; and in this short interval it seized no fewer than 147 individuals, or above a fifth of the population, of whom 37 died, or nearly one-fourth. In like manner in Sterlitamaka, a town of 2300 inhabitants, about 100 miles north of Orenburg, the disease broke out on the 7th November, and in twenty-two days attacked 79 of the inhabitants, and carried off a fourth part of these, although the temperature all the time ranged from  $-12^{\circ}$  to  $-35^{\circ}$  F. It is well known, that terrestrial miasma, so far as we have hitherto been acquainted with their properties, cannot exist under such conditions.

Another particular which is worthy of notice, as being on the whole at variance with the usual properties of terrestrial miasma, though certainly by no means so important as the facts already mentioned, is, that elevation above the plain where the chol-

era prevailed did not constitute any protection. In the East Indies it was, we believe, invariably observed that cholera did not proceed up the mountains. In the government of Orenburg, on the other hand, instances occurred of villages being attacked, though situated at a height of 1400 feet above the surrounding plain. The villages of Jemanguleva and Sarmanaeva, northwest from Orenburg, and situated at this elevation, were attacked, the latter on the 14th October, the former on the 1st November; and in Jemanguleva 73 persons were seized in the course of 23 days, of whom 55 died; while in Sarmanaeva the number attacked in four weeks was 113, and the deaths 19.

In the face of all these facts, it appears very difficult to trace the origin or progress of the Orenburg cholera to terrestrial emanations. And at all events it is quite impossible even to form a conjecture as to what these emanations may be, where they are produced, or in what circumstances.

Some of the Russian physicians appear inclined to attribute the disease to the ordinary causes of common cholera prevailing to an extraordinary degree, and favored by some peculiar epidemic state of the human constitution. In the autumn of 1829, it is observed that there was an unusual abundance of fruits, more especially of gourds and water-melons, which are considered, and probably with justice, to be very apt to induce ordinary cholera, and which in the present instance were regarded with so suspicious an eye, that the local magistracy of Orenburg prohibited the sale of them, or the introduction of them from the adjacent country. So far an immediate exciting cause was perhaps present. The Russian reports also supply some grounds for entertaining the notion that a peculiar epidemic state of the constitution existed throughout the population at large as a predisposing cause. Something of this kind has been supposed by East India practitioners to be at the bottom of the mysterious appearance and progress of epidemic cholera in that country. But all the facts yet collected on the subject in the East constitute no more than a basis from which to proceed with farther inquiries; and they have not received any material additions from the experience of the Russian physicians during the epidemic of Orenburg. The following observations, however, by doctor Onufriev, physician for the circle of Orenburg, are deserving of notice, as containing the only evidence worth mentioning relative to the point now under consideration.

"During the prevalence of the epidemic, there was scarcely a single inhabitant of the city of Orenburg, who had not some symptoms of disordered digestion. One complained of oppression and pain in the breast; another of headach, slight sickness,

looseness of the bowels, and the like. These trifling symptoms of disease were usually ascribed to errors in diet. But to me it appears that their cause was a general invasion of the system by cholera, which, however, was prevented from developing itself in its perfect characters, by a regular manner of living, and other circumstances of the kind. This may be considered as proved by the almost universal prevalence of symptoms of disturbed digestion, their originating without any apparent cause, especially in persons newly arrived at Orenburg, and their departing under the usual treatment."—P. 96.

It would be an object of extreme importance to establish, on satisfactory evidence, the existence of such a constitutional *diathesis*; but it appears hasty to assume its existence on such general and vague evidence as is here presented.

On the whole, the result of this sketch of the contents of the Russian documents is, it must be confessed, to leave the medical world still very much in the dark as to the origin and mode of propagation of the Orenburg cholera. The operation of terrestrial miasmata could no where be traced; the weather before and during its prevalence presented no peculiarity which distinguished the autumn of 1829, from the same season of previous years; the superabundance of the ordinary causes of common cholera is obviously far too feeble an agent for the production of so formidable a disease as epidemic cholera, without the pre-existence of some morbid peculiarity of constitution, which was too indistinctly traced throughout the Orenburg population; and if the doctrine of contagion be adopted, in default of a more plausible explanation, this can only be done under the admission that the disease might also originate differently,—or at all events, that numerous anomalies occurred, which are at variance with the laws of contagion, as laid down from careful observations, in various countries, and in various epidemics of diseases universally acknowledged to be of a contagious nature.

In this state of matters the mind is naturally led to incline to that opinion which appears to be the safest in its practical bearings; and, accordingly, one or two of the Orenburg physicians even at the commencement, and a great number of them towards the close of the cholera of 1829-30, either espoused the doctrine of contagion unreservedly, or admitted it to be so probable that they were induced to concur in the propriety of enforcing a rigorous quarantine. This opinion, and the resulting practice, gradually became so firmly established, that when the disease again appeared in Russia, in the autumn of 1830, it was

almost every where regarded as contagious, and quarantine enforced as in the instance of the plague.\*

At the end of February, 1830, the cholera, as we have already mentioned, became extinct in the Russian dominions. But about the same season in which it originated the year before, it again broke out with increased violence in a different quarter of the empire;† and it has continued ever since to spread, with little

\* [The reviewer of the Russian documents before us, goes upon the presumption, that there are but three modes of accounting for the extension of cholera. By contagion, by terrestrial miasm, or a *constitutional diathesis*. But is it not obvious, that there is another mode which is known to give rise to the widest, and most rapidly spreading disease known. We would ask here, what do we know of the cause of influenza? This disease has repeatedly risen upon us without our being in the slightest degree able to discover the cause: it travels from country to country, and sometimes extends throughout the known world. It has twice extended throughout the United States since we have been in practice, once in the autumn or latter part of summer, in the other it commenced in December, and few individuals escaped it through the winter. Now if the atmosphere can be so contaminated, by some hidden cause, at different seasons of the year, which gives rise to peculiar affections of the chest, head, &c. why may we not believe that another atmospherical contamination may take place, that shall give rise to severe affections of the stomach and bowels? Does not the facts which gave rise to the supposition, that at Orenburg, a peculiar diathesis existed, serve to show that this supposition, of a general contamination is the most rational explanation of the cause of cholera. We are told by the review before us, that the facts do not accord with the laws commonly observed to be connected with contagion or malaria. There is surely some cause.—We see the disease spreading with a rapidity far exceeding any known contagious disease; we see the disease rise up here and there, back and forward; though, upon the whole its march has been westward; this fact does not accord with what we know of miasmatic diseases; but, in influenza we have a disease rising up in the secret operations of the atmosphere, and carrying disease through several countries in succession, extending, in the main, from some one point of the compass regularly towards some other point—existing at different seasons: shall we still say, we cannot reconcile the laws or phenomena of the cholera to any thing known. We know as little chemically of the nature of malaria as we do of the hidden poisons of the atmosphere, which spreads throughout many countries, and still remains unknown and unseen as an agent, but nevertheless its operations are quite manifest in the disease called influenza. If one poison may thus exist, and elude our senses, and still traverse the known world, why may not another. In a word, we say that cholera assumes more nearly the nature of an influenza than any thing else, as regards propagation. And we are persuaded that if the influenza was equally mortal, it would have as many advocates for its contagiousness as has cholera.]

† [This is certainly a fact which is little calculated to give support to the notion of contagion. It is true we see something like this in small pox—it prevails, and disappears for some time, and after months recurs, but this may be ascribed principally to the fact of our being able to interrupt it by destroying the susceptibility of persons to the disease. A disease is



intermission, westwards, till the beginning of May, when information was received of its arrival in the neighborhood of Warsaw, having thus travelled about 1600 miles in the course of eight months. The documents and abstracts published by Professor Lichtenstädt bring down the account of the epidemic nearly to its cessation in Moscow. But the facts he has collected are too much general in their nature, and many of the documents less authentic, than in the instance of the Orenburg epidemic. Partly on these accounts, but chiefly because he promises to produce ere long a more detailed history of the second epidemic, we shall for the present pass over the second part of his work cursorily.

The epidemic of 1830, first appeared on the Persian frontier of Georgia, towards the end of July. From inquiries subsequently made by the Minister of the Interior, who was despatched in person to the diseased district, to superintend the labors of a Commission of Health, it was ascertained that the disease had appeared in June, in the Persian province of Ghilan, on the southern shore of the Caspian, and more especially in various towns, among which, Reschd, the port formerly spoken of, is particularly mentioned. From this it extended itself northward, along the western Caspian shore, till it reached Baku, another port, 200 miles from Reschd, early in July. On its way thither it likewise struck off in a north-westerly direction along the river Kur, and thus, on the 27th July, arrived at Tiflis, the capital of Georgia, distant 400 miles from Reschd. Here it attacked 579 persons in ten days, and of these 237 died. In this city it was not considered contagious. The particulars which led to that opinion are not stated; but "most convincing evidence," says the report, "was received of its not being contagious, so that the population were allowed and recommended to quit the town and scatter themselves among the adjacent hills,—a permission of which, in a few days, two-thirds of the people availed themselves."

Meanwhile, proceeding northwards from Baku along the Caspian, the disease attacked various ports and adjacent towns, and on the 19th July reached Astrachan, the capital of the kingdom of the same name, situated on an island in the principal mouth of the Wolga, about thirty miles from the northern shore of the

contagious, and yet it stops although it cannot be pretended, that persons having had it are not equally liable after a very short interval to the disease. A year afterwards this *contagion gets afloat again*.—How improbable! Is it not more probable, as their was a combination of circumstances at a certain season of the year, to engender the poison, and contaminate the air, that, at the same season of the year, there would be a similar combination?}

Caspian and 350 miles from Baku. Here in ten days 1220 persons were seized, and 433, or fully a third, perished. Its subsequent devastations in this city are not reported; and the report stops at a time when 100 persons were attacked daily. From Astrachan it spread in a north-westerly direction along the Wolga to Enotaevsk, Tschernojar, and Zaritzan, the last of which places, above 250 miles from the mouth of the river, it reached on the 4th of August. At Saratov, a considerable town on the Wolga, 200 miles farther north, it appeared on the 6th of August, and raged with great violence; for down to the 7th September, 2367 deaths are recorded. In its course north, from Tzaritzin to Saratov, it also struck off at right angles to the Wolga, and attacking the country of the Don Kossacks, had at the 17th September, affected 1792, and killed 1334 of these, or two-thirds; then continuing its branch-course westwards, it passed through the government of Woronesch, then reached Kharcov, 350 miles from the Wolga, and subsequently the government of Kiev, 150 miles farther west. But the main stream of the epidemic continuing to follow upwards the channel of the Wolga from Saratov, turned north-eastward with the river, and arrived at Samara, in the government of Simbirsk, and 200 miles north-east from Saratov, on the 27th August. Here in seven days 47 people died of the disease. At the same time, it passed about 140 miles in a northerly direction from Saratov, across the country to Penza, capital of the government of that name, where it arrived on the 17th August, and in fourteen days attacked 1200 of the population, of whom 800 died.\* Penza is situated near the source of a tributary of the Wolga running *northwards*, consequently in an opposite direction to the main stream of the river, and falling into it at Nischnei-Novgorod, where the main stream has a winding course from west to east, so as to make a great bend before taking its southerly direction. At Nischnei-Novgorod, the cholera commenced about the end of August; down to the 20th September, 800 persons had been seized; and on the 19th October it had affected 1863, of whom 968 died, or fully a half. Being now in the heart of the European dominions of Russia, it seems no longer to have observed its uniformity of direction. On the 9th September, it broke out at Kasan, capital of the government of the same name, 200 miles *down* the Wolga, and east from Nischnei-Novgorod; and here up to the 17th

\* [We are here told that 1200 hundred persons were affected in fourteen days, how incredible that a disease could spread so rapidly, in the town of Penza—the amount of population is not stated in the report.]

October, 1947 had been attacked, and 1174 carried off.\* At the same time it spread in a north-west direction from Nischnei-Novgorod to Kostroma, 150 miles up the river; and in various parts of the government of Kostroma had, down to the 26th October, affected 430 persons, of whom 125 died. From this place it spread north, north-west, and west, into the governments of Vologda, Novgorod, and Tver; where, however, at the date of the publication of the reports on the 14th November, it had either ceased, or never prevailed but to a limited extent. In a third direction from Nischnei-Novgorod, namely a little to the south of west, it proceeded along a tributary of the Wolga, and then striking off from it arrived at Moscow, about 260 miles from Nischnei-Novgorod, towards the middle of September. Between this period and the 10th of November, 5451 persons had been attacked in Moscow, and 2876, or three-fifths, died.

Such are the leading features in the progress of the Russian cholera of 1830. The general result is, that the disease advanced in a direction a little west of north from the south of the Caspian to Tver and Vologda, not far from the sources of the Wolga, being a distance of at least 1500 miles, in three months and a half. In this long course it appears to have chiefly followed the great lines of communication from country to country, attacking successively the great towns on the highways, or on the banks of navigable streams. Whether or not it diverged from the highways and towns, and assailed the villages or country districts at large, is not stated in the reports now before us. Neither is it mentioned whether it attacked successively every place in its route northward, or, as in India, passed over whole districts in its way from town to town, or, as in Orenburg, first passed them over, and then returned upon them.† These are very interesting points to determine in reference to the question

\* While we say the disease travelled eastward from Novgorod to Kasan, it is right to add, that it may also be considered as having arrived at the latter place by taking a north-westerly rout from Samara.

† [Is not the fact of the rapid extension of cholera over districts of country in India, in a rapid manner, corroborative of the opinion, that it is not so much a miasmatic as an unknown poison, floating in the atmosphere. What do we know of the formation and nature of the *strepes* of Italy and other countries—the air is contaminated, but we know not how; but, we know that diseases are modified by slight differences in their remote causes, and that much depends upon susceptibility of individuals. All nature is subject to revolutions; and the human constitution is obviously one of the most mutable things in nature, the constitutions of all nations undergo changes, which grow out of change of habit, of seasons, of weather and every surrounding object; so that, an atmosphere which has a certain contamination, will affect one nation, or one individual, and spare others, owing to a difference of susceptibility.]

of its mode of propagation; and it is therefore, to be hoped that the premised official reports will enable us to settle them.

There are also many other statistical considerations which we hope will not be omitted, more especially as for some years the attention which has been bestowed by the Russian Government on the statistics of the empire must have given it great facilities in conducting such inquiries. The reports and extracts translated by Professor Lichtenstädt, for example, do not convey any information on the proportion of cases to the population of each place, the relative mortality of different periods of the epidemic, in different ranks of life, in different circumstances of locality and access to medical advice, the relation of the mortality to that of ordinary years from diseases generally, and many other similar points of much interest in a scientific and practical point of view. The following facts of the kind now alluded to we have gleaned throughout the documents presented by the author. The mortality, which was every where considerably greater than in the Orenburg epidemic, differed much in different towns, being in Astrachan one-third of the cases, in the government of Kostroma rather less, in Nischnei-Novgorod one-half, in Kasan and Moscow three-fifths, in Penza, and in the country of the Don Cossacks two thirds,—and in the whole of these places taken collectively, the number affected was 14,000, and the 7700; so that the total average mortality throughout the invaded districts may be safely assumed to have been one-half. The mortality in Moscow varied greatly at different periods of the epidemic, being at first so high as nine-tenths of the cases, and afterwards sinking gradually to seven-eighths, five-sixths, three-fourths, a-half, and at last to a-third.\* The decrease was probably owing in part to a change in the virulence of the epidemic; but much must also be ascribed to the zeal of the government in providing the means of subjecting the patients in the poorer

\* [This fact is strongly opposed to the belief of contagion, we know that different years modify small pox, and other diseases believed to be contagious; but this is still in but a slight degree. No such mortality has ever been seen in any disease known to be contagious, and arising from a cause of a given force: severity in small pox depends upon some unfavorable influence in the weather sometimes; much more commonly upon the habit of the individual: and hence it is, that such a monstrous mortality never occurs: but, as is seen in cholera, admit that cholera depends upon an atmospheric influence, or rather poison; it is obvious that the severity of its operation will depend upon the amount of contamination—then, as the air shall be more or less loaded with the poison, so in the long run, will be the amount of violence. Subject an individual to the inspiration of any deleterious gas, not immediately fatal; and you may expect a result commensurate with the amount taken in; but, subject him to small pox, the amount of injury will depend upon habit of body.]

ranks to medical treatment at an early period of the disease.— In illustration of the importance of early medical treatment, an interesting fact is stated in one of the reports from the government of Saratov, where the disease was in general virulent. On the estate of Count Gurjev, in that government, 166 persons were attacked, and 19 died without any treatment; but of the remaining 147, who were subjected to treatment at an early stage, 26 only were cut off, that is, little more than a sixth part.

We have said, that from the very commencement of the epidemic of 1830, it was almost universally regarded as a contagious disease. A very remarkable exception, indeed, occurred at Tiflis. Here, as already stated, the physicians were so satisfied of its non-contagious nature, that the inhabitants were encouraged to disperse themselves in the surrounding country. It is greatly to be regretted that the reasons for this bold measure, and still more its results, have not been touched on in the reports, for it might almost be regarded as an *experimentum crucis* upon the question of contagion. Every where else, however, the doctrine of contagion was unreservedly adopted, and means founded on this conviction were taken to check the progress of the disease.

Although the Reports supply few precise facts in support of its contagious nature, the brevity with which most of them are given will probably account for this deficiency, as it is impossible to conceive that the doctrine would have been so generally adopted without the daily occurrence of incidents considered favorable to this view of the question. The only facts of sufficient consequence to require special notice from us are contained in a full and interesting narrative of the appearance and dissemination of the epidemic in and around Astrachan by doctor Solomov, staff-physician of that place. As his observations possess much interest, and relate to the first breaking out of the disease in the Russian dominions, we shall make no scruple in presenting them nearly in his own words—some passages only being omitted which appear to us immaterial.

"Cholera first appeared on the frontiers of the Astrachan government, on the 3d July, on board a ship of war, which had arrived from Baku, (350 miles down the Caspian,) and lay sixty miles from Astrachan. Till the 20th of the month the disease was confined within the Sedlitovski Lazaretto, whether the vessel with the sick had been brought. But on that day four people were taken ill in the city, near the river Kutum, and from this point the disease imperceptibly spread over the whole town, carrying off a great number of people. After the 17th it attacked the suburbs, then the nearest villages, and then gradually extend-

ed over the whole government.\* \* \* \* In reaching Astrachan from Baku, it passed over all the intermediate districts of the Russian territories. \* \* \* The first places attacked after Astrachan were several Tartar villages in the immediate vicinity, at a distance of from two to four miles, the inhabitants of which were in constant communication with the town, and to which also many families fled out of it as the disease spread. On the 27th July, it also appeared in the village of Tscherepacha, eight miles from Astrachan, on the return of some inhabitants, who had been to the town in search of work, and one of whom was the first person taken ill. After the 29th it proceeded through the Kossack stations and the town of Enotaevsk, on the highway to Moscow, up the stream of the Wolga, its extension in this direction evidently accompanying the fugitives from the places successively attacked. In the town of Enotaevsk it spread with the arrival of a sick boor. On the 29th July a barge arrived at Tchernojar, 150 miles up the Wolga, with several rowers on board, who were ill of cholera. On the 8th of August, the disease began to prevail among the inhabitants, and then passed across the river among the neighboring Kirghis, as well as upwards to the villages of Solodnikovsko and Vaisovka, in one of which the first person attacked was a military prisoner, who had been exposed to the disease. On the 25th July the epidemic also began in Krasnojar, situated on the northern mouth of the Wolga, twenty miles from Astrachan; and it first seized a private of invalids and a girl of thirteen years of age, who had both recently come from that capital. On the 3d of August it appeared in the estate of M. Nekrasov, ten miles from Krasnojar, and among the Algarin hills in the vicinity of the town; from which it finally extended down to the Cossack cordon on the Caspian, between which and Krasnojar there is constant communication. While the disease prevailed in Astrachan, some fishermen were there from Makovsky and Schitinsky, two places on the shore of the Caspian, where the Wolga opens into it. These men, terrified at the progress of the epidemic, hastened home, to place themselves, as they imagined, in security. But they had already imbibed the poison; some fell sick on the way, others

\* [This proves no positive relation, except that of coincidence as to time. The cholera existed in the East, it existed on board a ship, in the Caspian—it was first noticed in Sedlitovski Lazaretto, about the same time. Can it be said that this is any thing more than presumptive and vague proof, of these several incidents standing in the relation of cause and effect. If the Indies are almost always affected, more or less, with this deadly cholera, is there any wonder, that a vessel should visit Russia about the time a similar disease was about to prevail there? The wonder could indeed be, that we should find any other state of things.]

after arriving at their homes; and the disease soon spread throughout the community to which they belonged.

"On the 2d of August the salt-dépôt of Basinsk in the Caucasian kingdom, ten miles off the highway, was subjected to the general pestilence. On the 1st of the month an Armenian, convalescent from cholera, arrived at the house of a private of the dépôt guard, who was taken ill and died next day; and other cases occurred afterward. At the salt-dépôt likewise of Kigatska, twenty miles from Krasnojarsk, a private soldier was taken ill whom I had sent thither from Astrachan, with medicines and instructions for the inhabitants, in case the disease should appear among them; and various individuals were attacked subsequently.

"Many gardens and farms in the neighborhood of Astrachan remained exempt from the epidemic, having broken off all intercourse with the diseased districts. In many villages, too, where similar measures of security were taken, the issue was equally fortunate, although the cholera raged all around them,—for example, in the lordships of Smirnou, Beketov, and Prince Dolgoruki, in Surepta, eight miles from Zaritzin, and some other places. On the other hand, the Kalmucks, who, as soon as the disease appeared among them, left their sick comrades behind them and repaired to pasturage-grounds fourteen miles off and more, did not in this way get rid of their fatal visitor: fresh cases occurred among the families who were first attacked."

After these interesting particulars he goes on to state, that in Astrachan many instances occurred where the greater part of the members of a family were taken ill in succession, and that local causes appear to him inadequate to account for the disease prevailing epidemically, for the two seasons previous to 1830, were much more favorable than it is to the extension of a disease of local origin, as the country was much flooded. He has unfortunately omitted to tell us in what manner the cholera was supposed to have passed into the city of Astrachan from the Sedlitovski Lazaretto; but he observes that suspicions were entertained of cases having occurred before the 20th of July, although they were not reported to the police.

Here we must leave the Russian reports for the present. We wish that before doing so we could say they have enabled us to make up our minds on the great question for the elucidation of which they have been chiefly intended. But we cannot help declaring, that, in our opinion, while they certainly contain presumptive evidence of the Asiatic cholera being a contagious disease, they do not establish this point with the clearness which, in questions of the kind, the weariness and accuracy of medical science would desire in the present day.

The general tendency of the whole inquiry, as developed by the documents published by Professor Lichtenstädt, obviously leans towards the doctrine which some physicians in this country have within a few years been inclined to adopt in regard to all contagious diseases,—that the Asiatic cholera originates in a local cause, and for some time in this alone; but that it gradually acquires the power of communicating itself from man to man. Such is the doctrine espoused by Lichtenstädt himself. This is an easy mode of getting over the difficulties which have been encountered in attempting to solve the question of the contagiousness of various diseases; and, in the instance of cholera, it is peculiarly convenient, because there is no other disease, the phenomena of whose propagation are so perplexing to one who holds the doctrine of its origin in a single cause only. We conceive some of the facts mentioned in the preceding sketch are quite inexplicable, if it be assumed that the disease originates in terrestrial, atmospheric, or other local causes alone; that, on the contrary, other facts are equally incomprehensible, if the doctrine be upheld that it spreads only by communication from one person to another; and, consequently, that it appears almost indispensable to allow the existence of both modes of propagation.

But, before adopting the view here taken, the question naturally arises, whether the facts now alluded to were carefully ascertained, and the collateral circumstances fully inquired into. In particular, it may be asked, whether implicit reliance can be placed in the numerous instances recorded, to the effect that cholera never appeared except where some one took the disease, after having recently been in a diseased district. We know that the supposed incidents of this nature, which have occurred to some medical officers in the East Indies, are fallacious; because, instances have happened where, owing to the apathy or ignorance of the natives, the disease, though present in some districts, was not known to exist till it was discovered on the arrival of a European physician. And it is not saying too much to maintain that the southern and eastern states of the Russian empire are not yet so much elevated in their medico-political institutions, or in civilization generally, that similar sources of fallacy might not have been occasionally encountered there also, if diligently sought for.

We have had opportunities of mentioning, on various late occasions, our ideas on the accuracy of the tests by which it is usually supposed that a disease may be proved to be contagious or not; and have stated what, in our opinion, constitutes a better set of criterions than those commonly resorted to. We have not space to repeat here what has been previously stated.



But we may mention that the kind of evidence, on which we conceive the greatest reliance may be placed, is no where to be found in the reports of the Russian cholera.

Taking, however, the Reports as they stand,—admitting the authenticity and precision of the facts,—it will not be easy to deny that a strong presumption is supplied of the disease having been contagious, whatever may be the fact as to its also originating in a different cause. Assuming, therefore, that it is contagious, which, it may well be imagined, the European states most liable to a visit from it, will do unreservedly, it is requisite to add farther, that the Russian system of quarantine was not properly calculated to check and extirpate the disease. The duration of the Russian quarantine for the person is fourteen days. Now, the official documents supply the strongest presumption, that if contagion is its only cause, the contagion may lurk in the body without breaking out for a much longer period. The latent period seems in general to have varied from two or three days to a week; but there are also facts which establish a probability that it may at times extend beyond thirty-five days. This is an important consideration, to be kept in view by those governments which may feel called on to adopt means for preventing the introduction of the pestilence, and to profit by Russian experience in their choice of measures.

Since the preceding sketch was finished, the British government has taken the alarm, and an Order in Council has been issued, subjecting certain articles from Russian and Prussian sea-ports, to fourteen days' quarantine and purification. If the disease should approach any nearer the sea-ports on the Baltic, it will also be requisite to enforce quarantine for persons from suspected places; and indeed the Swedish government has already directed this measure to be resorted to, whenever vessels do not produce certificates of the town from which they sailed having been at the time free of cholera. When quarantine for the person shall be enforced, we may observe that it ought to be sharply looked after in this part of the kingdom particularly, as the voyage from the Baltic to the Firth of Forth is usually accomplished in a very few days.

The British government has, without doubt, acted wisely in considering epidemic cholera a contagious disease, so long as the only object is to prevent it from gaining access to our coasts. A little commercial inconvenience is a small price to pay for the chance of immunity. But it is to be hoped that the originators of the late order in council will not forget, that the question of contagion must not be solved in so summary a manner, if unhappily the disease should once gain a footing among us. The question would then be no longer a mere object of hypothetical

speculation, which in practice might be solved in the meantime, by holding what is called the safe side to be the true one. Before it is accurately determined whether or not cholera can propagate itself from one person to another, no man can say which opinion it is safest to hold. For in the one case the epidemic is to be checked by hemming in the population of the district where it appears; in the other by inducing them on the contrary to disperse over the country. The question, therefore, is not a mere subject of idle medical controversy, but is pregnant with the gravest practical conclusions.

Since we have been led to touch on the possibility of the cholera visiting the British Isles, it may be well to add, that our government should consider, that there is no other country in civilized Europe which has so great reason to dread the consequences of a visit from this terrible scourge. The density of our population,—the extraordinary quickness and extent of intercourse between our great towns,—the great difficulty which would be encountered in imposing restrictions on the liberty of the subject,—and the want of an adequate military force, if that difficulty were overcome,—would all combine, we apprehend, to render its diffusion swift and extensive to a degree unparalleled in its previous history.\*

\* [We have not room to enter into any further explanation of our views of this disease. It seems proper, however, to allude to the fact, that there appears to be sufficient proof that the disease has lately, and perhaps at this time, prevails with great mortality at St. Petersburg. What has become of their precautionary measures? Where is the protecting *arm* of their *cordon sanitaire*? their quarantine? their surveillance? and what not, in the form of power and denunciation? feeble as a feather before the wind, the disease riots in all its remorseless cruelty, in despite of them, and can only be arrested when the All wise Creator in his mercy, shall stay the pestilence, which floats in the air. Although we do not presume to ascribe this pestilence to particular Divine vengeance; yet, we believe, that this plague, like that which over-ran Egypt in the days of Pharaoh, is seated on the wings of the atmosphere; it moveth where "it listeth," and none can tell whither it cometh, or whither it goeth, nor can man stay its progress. Let us then strive to lessen susceptibility to the disease, by careful living, and endeavor to find, so far as possible, an antidote to the disease.]

*Selecta with Remarks.*

## MEDICAL.

*Ophthalmia.* We deem the following paper highly important—it is taken from doctor Coxe's Museum, vol. 1. This paper is from doctor Wm. Shaw, in a letter to doctor Rush. Speaking of an ophthalmia which appeared in the Philadelphia Almshouse, in the year 1803, it is said to have been "highly contagious, in so much, that in twenty-four hours after the admission of children into the nursery, (where it was chiefly confined,) their eyes were entirely closed with the excessive inflammation. The cause could not be discovered. Doctor Physick and myself had charge of the children, many of whom were under two years of age, and none exceeded seven. After trying every thing that could be thought of, without effect, recourse was had to blood-letting, which had the desired effect. *Many of them were bled as many as twenty times in the course of about six weeks; the quantity taken at each bleeding, was from two to four ounces: of between thirty and forty cases, one only remained uncured, and that was in consequence of rubbing the eyes.* This communication I have thought proper to make at this time, because it, in my opinion, shews the urgency of the lancet in the disease in question, in as high a degree as in a pleurisy or any other inflammatory complaint whatever."

Such is the importance of a part of one clause in the above paper, that we have thought proper to italicize it. The above disease was clearly of an endemic character, whether it was influenced by a specific contagion, we will not stop to inquire, but would merely say, for ourselves, that we cannot admit the supposition of contagion being at all concerned. This we infer from the fact of the general violence of the disease; and the suddenness of the attack. It must be admitted, that even small pox is more virulent some years than others; but, in all seasons, we see very extraordinary differences, some having the disease severely, while others are scarcely laid up by it. But all seem to have been severely affected with this ophthalmia, showing, we think, that the cause was a vitiated state of the atmosphere; and, without this vitiated state of the air, there would not have been so many cases—if this view of the subject be doubted, how shall we account for the origin of the disease? One cause is always sufficient for a given effect.

Our experience has led us to believe, that we do not, as a general rule of practice, bleed sufficiently in cases of ophthalmia; and in support of this important truth, we would mention *the many cases of cataract, and opacity of the cornea, which succeed*

attacks of inflammation of the eyes. And let it not be supposed, that leeches will supercede the necessity for the use of the lancet. We think nothing can be more manifest, than that a disease which required twenty bleedings to subdue it, and which free bleeding did not fail to cure, would not have yielded to the topical bleeding by leeches. Whatever may be alleged in favor of the conjoined use of the lancet and leeches, we are clearly of the opinion, that without general bleeding, in violent cases, we cannot check inflammation of the eyes till opacity has taken place; but, as so satisfactorily appears in the paper before us, general bleeding can be made to succeed admirably.

Whether we adopt the opinion of the contagious, or endemic character of the disease under notice, it must be confessed, that it was extremely violent and obstinate, and somewhat peculiar in its character. To this circumstance are we to ascribe the necessity for copious bloodletting; but however beneficial as above stated, or however important to a proper extent, in very many cases of ophthalmy, we must not lose sight of the fact, that as this disease had a peculiar character, so also did it require a peculiar treatment; which peculiarity here, consisted in carrying bleeding to an extraordinary extent. But this does not raise any objection to more free general bleeding, than is usually practised in severe cases of ophthalmy. We would here lay down the same rule, which we have elsewhere proposed for the regulation of bloodletting—we would consider the remedy, (no remarkable contradistinction in the way,) as necessary, and to be carried to as great an extent, on account of great obstinacy; as on account of more marked violence.

*Rheumatism.* "On a new practice in acute and chronic rheumatism. By J. K. Mitchell, M. D., one of the attending physicians of the Pennsylvania hospital." This very interesting paper contains twelve cases, in support of the "new practice" in the disease in view—and the practice consists almost exclusively of local bloodletting. Should the practice prove as successful in the hands of others, as it has under the observation of doctor Mitchell, the method here proposed will be truly invaluable, since rheumatism is almost always an obstinate disease, and highly afflictive. The first case detailed, was accompanied with disease of the spine; and the usual remedies for rheumatism, having failed to give relief to rheumatic pains of the legs, "I caused, (says doctor Mitchell,) leeches to be applied to the lumbar curve, and followed these by a blister placed upon the same spot." The relief was very decided, but some slight pain remaining, the leeches were repeated—patient soon in his usual state, but still an invalid, by the spinal disease. This patient suffered chiefly in the lower extremities, one of which was "tumesied, red, hot,

and painful. The usual remedies, as leeches to the parts affected, with other antiphlogistic remedies, entirely failed to give relief.

In the second case, a little girl, affected with disease of the spine, was attacked with rheumatic pains of the wrists, with swelling, &c. Leeches were applied to the cervical spine, and afforded prompt relief.

The third case was that of a man, who was affected in his lower limbs for upwards of two years. His pain was severe, attended with swelling of the legs, and thickening of the periosteum on the tibia; also, pain of the scalp. He was eventually confined to his chamber. He was "freely depleted"—purged actively—head blistered—took corrosive sub. sarsap. &c. all without effect. He was now cupped on the back of the neck, and a large seton put into the lumber spinal region. The cupping was succeeded by a blister. The seton was removed in about 45 days, when the patient had recovered his health completely.

A fourth case presented itself in the person of a man of good constitution, 66 years of age. He had severe pain in his right heel and ankle, immediately followed by redness, heat, and tumefaction; afterwards, the knee and ankle of the opposite limb became similarly affected, and confined him to bed. The patient had high fever when visited by doctor Mitchell, but had been freely bled and purged. Seventeen leeches were applied to the lumber region—the next day the pain was nearly gone in the lower extremities, but not in the upper. He was purged. Third day, twelve cups to the cervical spine. The patient took a purgative or two, and recovered speedily. Upon this case, doctor Mitchell has made the following remarks:— 'The reader will, in the above case, perceive, that the general bleeding, though very copious, proved of no service, and that the large local depletion of the lumber region, benefitted solely that part of the disease which lay at the peripheral extremities of the nerves, supplied by the lower end of the spinal marrow. The inflammation in the upper extremities, continued afterwards in progress, and was arrested only when cups were applied over the cervical end of the spinal column.

"The whole case exhibits a fine exemplification of the difference in the character and extent of the influence of general and topical depletion, and proves that local bloodletting is most potent when applied to that part of the spine, which supplies with nerves the part in a state of active inflammation."

Although we agree with our author, that his practice exhibits a very extraordinary, and highly interesting specimen of the utility of local bleeding, still we would not agree in the opinion, that because there was no benefit manifested by one copious bleeding, that we are to conclude that it was, and is not likely

to be useful. Our daily experience proves the utility of free bleeding in inflammatory rheumatism; and it is well known, that to be useful, general bloodletting must sometimes be repeated several times; nay, it is well known, that in some cases of inflammatory disease, one, two, or more bleedings; will only aggravate the disease, and yet, a further repetition will arrest it, in the most satisfactory manner.

Our author has italicised the following sentence: "local bloodletting is most potent when applied to that part of the spine, which supplies with nerves the parts, in a state of active inflammation." This is what we might *a priori* expect, but where can we avail ourselves of a rule of practice growing out of this fact? except in diseases seated in the spine, or which are associated with some disturbance of the spinal brain. This fact, so important as it stands related to certain cases of rheumatism, while it serves to point out this important truth, militates against the belief that local bleeding holds the same relative advantages in other inflammatory affections. That is, we believe that local bleeding, in these cases, is so essentially useful, because it can be applied to, or near, the origin of the nerves which supply the part affected; and which nerves, at their origin, are probably in a state of irritation, but it does not follow that the same advantages will follow local bleeding under other circumstances. We were prepared to expect, that local bleeding would not answer as well at a point somewhat distant from the seat of disease, as directly at the point. This was clearly manifested in the practice of doctor Mitchell.

That local bleeding may be made highly useful, under suitable circumstances, we are well aware; and too much importance can scarcely be ascribed to this remedy, but we would pointedly object to all attempts at deprecating general bloodletting, in order to give more importance to the local. Both have their utility, separately or combined, or alternated as circumstances may vary. The cases of doctor Mitchell, exhibit the most cogent proof of the salutary effects of local bleeding, that we have seen; but while we anticipate very much benefit from the new light thrown upon the practice in rheumatism, we must not be too sanguine. There is scarcely any thing fixed in the practice of medicine. Doubtless the cases detailed, have all been, more or less, under some peculiar condition of the system, growing out of what we would term an epidemical influence; and it will be found, that under other states of the system, that however useful this treatment may be, in some cases, other epidemical influences will occasionally arise, in which the spine will hold a less important share, and give rise to a necessity for some other practice.

Doctor Mitchell, after noticing the foregoing cases, gives the detail of eight cases which were treated in the Pennsylvania hospital; in all of which, cupping the spine seemed to have been the only effectual remedy. There being a sameness in the cases, we deem it unnecessary to enter into a detail of them. One rule of practice only seems absolutely essential, (i. e.) that we apply the cups at the roots of the nerves of the affected part.

Our author, after briefly detailing the cases already mentioned, gives us the following concluding remarks: "Although other cases might be cited in confirmation of the views here taken, I have no leisure at this time, to digest and arrange them. At no distant period, I expect to bring the subject before the profession. I may observe, in general, that as far as I now recollect, only two cases of apparent rheumatism, have in my hands, either in private practice, or in the Pennsylvania hospital, resisted the treatment recommended in this paper, and both of them were in reality neuralgia, and exhibited no traces of inflammation."

*Cubebs in leucorrhea.* The Edinburgh Medical and Surgical Journal, vol. 34, gives the reports of doctor Corrigan, on the diseases of Dublin. We are told, that he has found cubebs the most useful medicine in *leucorrhea*, given in the form of electuary.

*Cor. sublimate in gonorrhea.* Venereal cases of *iritis*, yielded to *cor. sublimate*.

*Blisters to the roots of the nerves in cases of paralysis.* Two cases of *partial paralysis*, were cured by blistering the region of the roots of the nerves of the affected extremity. In one case, the blisters were applied three times to the mastoid process; in the other, once to the spine.

*Jalap and nitr. pot. in eczema.* He has seen decided benefit in cases of *eczema* from the use of pretty large doses of *jalap* and *nitrat of potas*, some time persevered in.

A case of *long protracted diarrhea*, was cured by the use of an electuary of *crem tartar* and *capsicum*, or *cubebs*; the two latter were used alternately.

*Cancrum oris*, was cured by the exhibition of an emetic or two, followed by mild purgatives, and the local application of the *nitrate of silver*, once a day.

#### PATHOLOGY AND PRACTICE OF MEDICINE.

*On the respective prevalence of pneumonia, at different ages, and in the two sides of the chest.* (*Archives Generales de medecine, Janvier, 1831.*)—M. Lombard has made some investigations into the respective prevalence of pneumonia in the two sides of the chest, and agrees with former observers in the conclusion that the right lung is more frequently affected than the left. Uniting all the cases collected by Chomel, Andral, and himself, he finds that in 968 patients, 195 had the disease in both lungs,

260 in the left lung, and 413 in the right; so that, for 455 attacks of inflammation of the left side, there are 673 of inflammation in the right. Various explanations have been proposed of this fact. Some have ascribed its occurrence, more especially in young children, to the right, being the side on which most individuals lie in bed; though how this circumstance should have the effect of predisposing to pneumonia, we confess, it is not easy to perceive. Others have ascribed it to the greater muscularity of the right side of the body; but this explanation is evidently inadequate, since M. Lombard, clearly establishes that the difference between the two sides in liability to inflammation is at least as great in females as in males, and in young children as in adults. M. Lombard, on the other hand, considers that the explanation ought rather to be sought for in the anatomical structure of the organs; and he thinks that the difference in the size of the arteries sent to each side will account for the fact. "After the pulmonary artery," says he, "has crossed the direction of the aorta, and has reached the level of the second dorsal vertebra, it divides into two branches, of which the right branch is the larger and more directly transverse in its course, so that more blood must pass along it than along the left division in the same interval of time. The functional activity of the right lung is therefore greater than of the left lung; and it is well known that the frequency of inflammation is in the direct notice of the functional activity of the organ. Such at least is the only plausible hypothesis which can be formed in the present state of science."

"Several late authors have thought that pneumonia is more frequent in adults than in the young. But M. Lombard has been led to a different conclusion; which is, that it is most frequent in infancy, and in old age, and least frequent in the prime of life. The data on which he rests this statement are taken from various public hospitals. From the pathological examination of 206 infants between one day and eighteen months old, of 118 children between eighteen months and fourteen years, and of 1284 persons at different ages between fifteen and eighty-three, he infers, that pneumonia forms 3-17ths of all the organic derangement found in infants, who have died during the first eight days,—that in the second week it forms 2-9ths,—in the third week 3-10ths, between the sixth week and the end of the second month 2-9ths—between the second and sixth month, 1-10th only; the second year, it increases again to 1-3d; from the second to the sixth year it forms between a fourth and a fifth; from the eighth to the eleventh between a fourth and a sixth; from the fourteenth to the nineteenth only 1-37th; from the nineteenth to the twenty-seventh about a ninth. From this period till the age of forty-



seven the proportion is only a fifteenth; from this till the age of seventy-five a fourteenth, and above this an eighth."

[We are reminded here of a man, in middle life, who was brought into the Baltimore hospital, some years ago, laboring, as was supposed, under phthisis pulmonalis.—He died in three or four weeks. Upon opening the thorax, the entire right lobe was cut away, by ulceration or gangrene. The large vessels were seen cut off, and standing with open mouths. The cavity was filled by layers of organized fibrin, coagula of blood, thickened membranes, and fluid blood, in the thorax; thus, forming a kind of aneurism.

[We are acquainted with a very worthy minister of the gospel, under forty, who was compelled, upwards of two years since, to give up his clerical duties, and two years since he removed to Florida, where he resided without care, or engaging in any kind of business. His curative measures have been principally bloodletting, whenever the stricture of his chest, and the severity of cough seemed to require it. He has lately returned to this city by sea, via N. York, and bore travelling from thence to this city by the steam boat line. He was extremely emaciated, when he left this, two years ago, and so debilitated that he could scarcely walk a square, where as now he walks firmly, coughs very little, has very little distress in the chest; no fever except a little heat occasionally, in his hands and feet. When he left this he was decidedly hectic. He now retires to bed at 10 o'clock, and with great regularity sleeps seven hours before he wakes. Upon rising he coughs and expectorates pretty smartly, and then has little trouble from the cough till the same time next day. His diet is very regular, and he says that he has become so accustomed to a reduced diet, that he could live on bread and milk and partake of considerable labor. In short, this gentleman may be said to be in a state of convalescence from confirmed consumption, and it is highly probable that he will recover fully; but, as yet, he carefully avoids any effort at speaking, not attempting to preach at all.

He has long since discovered that the disease is, perhaps, wholly in the *right lobe of the lungs*. He now thinks that his left lung performs its function quite well. Indeed, we have a clear recollection of having seen more cases of this disease of the right lung than of the left—we know of no satisfactory reason for such a difference. If M. Lombard be right in ascribing it to increased vascular action, perhaps, the application of cold in the early stage, may be employed with prospect of success.

## SURGICAL.

*Observations on the operation for the removal of scirrhus tumors.* We have often been disappointed and vexed at the delay which almost always attends the healing of wounds of the mamma for the removal of tumors. While we have often healed the wounds after the removal of the entire breast, in 12 or 16 days, we have had wounds for the removal of tumors not larger than a pullets egg, remain open for several weeks and attended most of the time with a very copious discharge of pus. It occurred to us lately that the operation might be modified so as to secure the healing of the parts by the first intention and thereby save the patient much pain and trouble.

With a view of attaining this desirable end, we performed the following operation on Mrs. S. of this city, Aug. 23th, 1831. There was a scirrhus tumor about the size of a pigeon's egg, in her breast, it was moveable and not attached to the skin. Heretofore we have in such cases, split open the skin and dissected out the tumor, taking care to take away the adjacent parts to some distance around, so as to secure the entire removal of the disease. But we now made two curved incisions through the skin so as to include and take out an elliptical piece of the integument an inch and a half in the largest diameter; then the dissection was continued as nearly as possible in the same lines 'till we got below the tumor, then slanting the knife inwards, an elliptical piece was removed; taking away of course, a portion of the sound structures at both ends of the tumor. Three arteries of considerable size were cut and bled freely; these were secured by the torsion.

The parts being now brought together, we were much pleased with the nicety and accuracy with which they lay in contact. So much so that it was not necessary to carry a suture which we introduced deeper than the skin.

We are confident that if surgeons will give this method of operation a careful trial, they will be pleased with the result. The operation can be performed in this way, more expeditiously than by cutting round the tumor; and since, by this latter method we leave a cavity into which is secreted a quantity of pus for a long time, nothing is more difficult than to manage this cavity so as to get it to fill up. But by laying the parts nicely in contact, as in the case above detailed, the wound healed by the first intention in a few days.

*Surgical case of a contused wound of the foot.*

On Sunday Aug. 13th, 1831, I was called to a boy whose foot was much injured, by the iron wheel of a rail road car.—The

shoe which he wore was made of strong leather, and was not tore; and yet the foot was nearly cut off, a little behind the toes. The wound was directly across the foot, mashing the three greater metatarsal bones, and extended entirely through the integuments, muscles, and bones; while the tendons were considerably elongated, most likely by some loosening at their insertions.—One of the shorter tendons was torn in the foot, and hung out about four inches—this I cut off. On the bottom of the foot there still remained a little aponeurotic and muscular structure—the skin was greatly contused and had a hole squeezed through it of considerable size at one point, and there was a division of the skin of two inches; so that very little reliance could be placed on the circulation in this quarter, but along the foreside of the great toe, there was a narrow slip of integument, which was pretty sound, and, perhaps, there was a little muscle also.

Such being the state of the parts, it was easily to be seen that there was much risk of a loss of the big toe for want of vascular supply, but still we thought best to endeavor to save the entire member. Taking a long strip of adhesive plaster, I commenced with one end a little above the heel, carried it along the sole of the foot, then between the second and first toes, and on the upper part of the foot, till it reached to the instep.—The parts were now pressed tenderly together, and the strip applied as firmly as was deemed consistent with the welfare of the parts. This brought the parts well into contact, and getting an assistant to keep the under strip on to the sole of the foot, I carried a strip around the foot, and thus kept the first strip completely in place. Two or three other pieces were applied between the other toes, and the ends carried up obliquely around the foot, at the tarsus. A small splint was now laid on the bottom of the foot, and a turn or two of a loose roller made.—This was intended to counteract the action of the extensors, the flexors being disabled.

The foot was thus placed in a very good condition, and the boy was directed to take laudanum freely, as the pain might require; during the night he took about a hundred drops, and had some tolerable rest.

Next morning swelling moderate, but little heat, pain considerable. Pulse frequent, but not tense. Take small doses of laudanum, should the pain require it. In the evening bled 10 ounces; repeat the laudanum, as there may be occasion.

Next day at 10 o'clock, informed that he had slept tolerably—some pain in his leg, very little swelling, but the big toe was perfectly black and cold, and devoid of feeling. He had taken a dose of salts agreeably to directions given the evening before. I directed a little flannel cap to be put on the big toe, and to keep it constantly wet with heated whiskey, repeating its application

every half hour. In the evening informed, that soon after applying the hot spirit the toe became white, resembling a dead toe—it continued so till the boy, some hours after applying the spirit, had occasion to use the close stool—they held him up a few minutes, and, in a little time, it was observed, by taking off *the flannel*, that the toe had become suddenly red, and continued so; it was now warm, red, and somewhat uneasy, and quite sensitive to the touch. Continue the spirit.—There being a good deal of fever, we directed repetition of salts, his bowels not having been freely acted on.

Tuesday 16th. Appearances much as yesterday—foot swelled but not the leg; fever considerable—directed dose of salts, and continue the spirit to the toe—laudanum in the evening, if there be any pain.

Wednesday 17th. The foot being now swoln, thought proper to remove the adhesive strips.—The toe has recovered its vitality pretty well, but the integument is dead and black along both edges of the wound, across the upper part of the foot, to the extent of half an inch. There are several livid blisters along the side of the foot, also on the sole of the foot, near the hole which, we have said, existed near the great toe. Under these circumstances we directed the carrot and yeast poultice to the entire foot. The fever being moderate, we merely directed a reduced diet, and a dose of salts. The toes were kept from falling down or inwards, by a strip of fine rag passed around the toe, and connected to another around the leg before.

Thursday 18th. Nothing remarkable, appearances much as yesterday; continue the poultice, and low diet, opiate at night.

Friday 19th. Foot rather more swelled, and more painful or rather more irritable since he does not complain, except some one walks hard over the floor, when he complains bitterly. Upon removing the lint from the vesicles already mentioned, I discovered a considerable portion of the skin perfectly livid, along the minor side of the foot. Little or no fever; toes look well—cut away all the loose skin, and continued the poultice. Take salts in the evening.

Saturday 20th. Rested well last night without laudanum, no extension of the mortification, no suppuration, but so much of the skin as has lost its vitality is rotting away rapidly. Has not much pain, no fever—continue the poultice.

Sunday 21st. No visible change since yesterday—was restless last night till late bed time, when he took a dose of laudanum, and rested well afterwards. Has no fever—the toes look well, skin rots away, but there is no well worked suppuration. The foot less swelled. The bowels not having been open yesterday,

I directed salts to be taken—the wound was well washed with soap and water, and the poultice to be continued.

Monday 22d. The wound being now freed from the slough, we changed the carrot and yeast poultice for one of flaxseed meal.—This soon rendered the foot more comfortable and brought on free suppuration. Perceiving after four or five days that the granulations were too luxuriant and that the discharge was great, we agreed with our friend doctor Cromwell, to change the poultice for dry lint covered with a rag spread with simple ointment. About this time, and before the poultice was removed the surface of the sore bled considerably. I therefore directed the sore to be well soaked and washed with oak bark water. In three or four days it was plainly seen that cicatrization was going on. During all this time it was seen that the toes, especially the great one, were nearly separated from the foot and the re-union still so imperfect as to shake it about when the foot was lifted. To prevent motion and to aid the union which was going on, a strip of soft linen was carried between the great toe and the next, passing then along beside the foot, it was carried around the ankle and tied moderately—by this means the toes were kept pretty firm to the foot and the re-union is going on well.—The ulcer is healing daily, and although there is a cleft of some depth at the bottom of the foot it fills daily by granulations. This case has now terminated in a cure of the foot, without any loss of parts, that is, on the 10th of October.

*Singular case of a cartilaginous body, situated in the middle joint, of the middle finger, of the right hand.*—A lady, pretty far advanced in life, called for advice on account of a strange snapping sensation and sound, in her middle right finger, as often as she bent it, attended with a good deal of pain. She stated that she had not observed any thing amiss till a few days ago, when in twisting the finger in handling a wash-basin, she felt suddenly as if she had sprained the finger; and, as often as she attempted to flex the finger there was an audible snap; and she could no longer flex the finger quite so far as formerly.

In my examination I observed that the middle joint was a little enlarged, and the finger a little bent at this joint, so as to cause the end of the finger slightly to approximate the little finger. I could distinctly hear a snap when she bent the finger, and could feel and see the tendon of extension slip down along the inside of the finger, as far as a middle ling of the finger lengthways. Upon pulling the finger, and twisting the joint alternately, I at length, after being much perplexed in forming any satisfactory opinion, perceived a little moveable roundish flat body, on the inside of the finger, and just behind the joint, and deeply buried. I advised its removal. Result not certainly known, but we believe the operation has succeeded.

The next day, the patient was resolutely bent upon obtaining relief if possible, and at the expense of any operation that might be deemed necessary. She observed that after the handling of it yesterday, it had been much easier; but the snapping remained as usual. Upon examining I could not discover the extraneous body where I had left it the day before. It was not until considerable search that, I found it lying just behind the joint, on the upper side of the finger. By flexing the finger slightly, and running the point of my fore finger round over the joint, as one would roll a marble, or pebble, under his finger, I perceived it plainly. I, at this time, and also yesterday, observed that pressure on the upper side of the joint, where the *body* now lay, was very painful to the patient.

Finding that the body was now located in its original seat, from whence it had been thrown, upon the side of the finger, by the sprain of which we have taken notice; we had some doubts as to the necessity of removing the offending body, but the snapping was in no degree abated, the whole joint being thickened, and there being no reasonable prospect of any improvement, and the patient declaring that she could not employ that hand, in the most common offices, without considerable uneasiness, I determined upon its removal. Flexing the finger gently, and fixing clearly in my mind, the precise location of the cartilage, (for such I supposed it to be,) and drawing the skin a little forwards, with the fingers of my left hand, I made an incision with my right a little behind the joint, observing to avoid opening the ligament of the joint if possible. Making an incision about three-fourths of an inch towards the hand, and carrying it through the aponeurotic covering of the finger, then passing down the handle of a small scalpel, the offending body slipped out of its capsule. It was similar in shape to a common flatish bean, about the size of the chrystalline lens of a Mackarel, and of a cartilaginous structure.

I now observed that the structures, particularly the aponeurotic, were considerably thickened, and hardened. The snapping still took place upon bending the finger, but in a slighter degree; and, I have no doubt that since the offending body is removed, the induration of parts will gradually subside, and as this takes place, the tendon will recover its situation, in its natural groove, and perform its office without impediment. This, we presume, is a rare occurrence in the small joints; but it will be recollected that, Mr. Abernethy, Hey, and others, treat of such affections in the knee, in particular; they are also sometimes seen in the elbow joint.

*Interesting case of herpetic eruption, supposed to be cured by the application of rye flour.*—A gentleman of very temperate habits, but of very active life, from a neighboring state, applied to us for advice in a case of an herpetic eruption, of several years standing; but of a changeable character, being sometimes very bad, and then, again, getting nearly well. The eruption had commenced on the legs, similar to the eruption called by some the *rose*, but, at this time, it extended up both legs, to the middle of the thighs. The parts were desperately scratched, owing to the intolerable itching.

We recommended a low diet, the daily use of a mixture of epsom salts, cream tartar, loaf sugar, and oil of sassafras in a syrup, so as to keep up a tolerable degree of purging; and a solution of 1 gr. of cor. sub. in 6 ounces of water, to be used frequently, as a wash. After pursuing this course for several weeks, he says he was not sensible of any improvement. He now had a little bag of rye flour prepared—with this he dusted his legs for some time, morning and evening, taking care to keep as much on the skin as he could; in a few weeks he was quite well.

#### MIDWIFERY.

*Case of puerperal convulsions.* I was called on the 6th of September, 1831, at noon, to attend Mrs. D., in her first accouchment. She has had some slight pain during the morning, also, informed that she has had a pretty considerable red discharge from the vagina. Upon examination I found the head of the child low down, with a natural presentation, the membranes ruptured; and, as it afterwards turned out, the waters evacuated. I had seen this lady the day before, on account of a pain in her shoulder, which she ascribed to a cold. I bled her, which gave relief the following night, at which time the pain had been most troublesome. I remarked particularly at this visit, that she was very small for a female at full time; and I presume, from the statements of the nurse, who was with her during the morning of the 6th, that there was an unusually small quantity of waters. Finding the child thus descended, and the os uteri dilated, to the size of a dollar, I remained; but did not materially interfere till between three and four o'clock in the afternoon, when I found the pain increasing considerably. She bore her sufferings well; and, as far as possible, seconded nature in her uterine pains; but it was only at long intervals that she had any thing like efficient pain, though small grinding, and griping pains, were very frequent. The progress of the labor was extremely slow, yet every thing appear-

ed well, and promised a safe, and not distant termination of the case.

About half after six o'clock, in the evening, the pains were once or twice pretty good; but she had intermediately two or three attacks of cramp in her left leg. At this time, when the pains were strong, the prolonged occiput was at least an inch without the vulva, but when the pain subsided it still receded somewhat. I had remarked for the last hour or more that there was a very uncommon amount of agitation in the fetus—it seemed quite restless, struggled, turning the head somewhat; and although quite down in the pelvis it was quite moveable. About 7 o'clock there was a slight abatement of the pains, and I consented to leave the patient for the purpose of taking a cup of tea.—I had not left the room more than 7 or 8 minutes when I was called, by the nurse, in great alarm. Running quickly to her assistance, I found my patient in a violent convulsion—her whole frame was violently contorted, and she frothed at the mouth, was very livid in the face, &c; but her pulse was full, and tense. Seeing a garter and a wash bowl at hand, I instantly tore open the sleeve of her night gown, applied the ligature, and made a large orifice in a good vein in the right arm. When about three pints were drawn, she began to recover her senses, and in about 15 minutes she was quite restored, except that she talked incessantly—said perpetually the same thing, that she has had an easy labor, that she has not had much pain, she had not been hurt &c.

Whilst I was in the act of preparing to bleed her, I directed my assistants to turn her upon her back, raise her head pretty well, and wash her with camphorated spirits, hold hartshorn to her nose, &c. I also despatched a person for my forceps. Soon as she could swallow, I gave her a large teaspoonful of laudanum.

In about half an hour my forceps arrived, I proceeded to apply them, and delivered her without the slightest difficulty, she still felt a little uterine pain, but it was not such as to do any service. I had fearful apprehensions, that such was the violence of the convulsions, that, the child would perish; but I was greatly pleased to hear it cry audibly as soon as fairly born. In about twenty minutes, I found the placenta descended without any pain, and safely completed the delivery. In about 10 or 15 minutes while she continued to talk, she suddenly threw about her arms, and became violently convulsed; turning to her assistance, I observed the womb drawn up into a frightful knob, larger than a man's head. I pressed my hand quickly, but gently upon this swelling, for about half a minute, and it partly subsided; but I speedily proceeded to tie the ligature around the arm that had been bled, and suffered about a pint or more of blood to flow from the same



orifice. Her face was rubbed with camphorated spirits, &c.; mustard was quickly applied to her neck, and feet, a bandage was applied pretty firmly around the abdomen. Soon as she could swallow I gave her a large teaspoonful of laudanum, and repeated in a few minutes. In about half an hour the mustard began to act, and very soon brought her to recollection.

The skin being well irritated in about half an hour, the mustard was taken off. About half past nine I found her pulse pretty well composed, she was sensible, and the eye had recovered of its stare. I now ventured to leave her with conditional instructions, which fortunately were not wanted, as she pretty soon slept, and had a good night.

Next morning I found the pulse calm and soft, the patient said she was surprised to find herself so little reduced in strength; but she was not aware of having had any convulsions. Both mother and child are quite as well as could be expected this morning.—Lochial discharges proper. Evening, informed that she has been sleeping mostly during the day, which is probably owing to the laudanum taken the evening before.

7th in the morning; had a good night, pulse equable, and not indicating any particular debility, though the patient remarked that she did not feel so strong as yesterday morning—has a great desire for solid food, such as beefsteak, and chicken, which of course was forbidden. Directed dose of oil.

8th. Doing extremely well, not an unpleasant symptom. The oil acted well—pulse a little full, but patient feels so well that she asked permission to set up out of bed, which was denied her. Child doing well.

*Remarks,* agreeably to settled principles, and practice, there was not any indication for delivery prior to the convulsions—we are now convinced that this was one of those rare cases that come under no ordinary rule. It has confirmed me in the opinion, that notwithstanding the general propriety and safety of the more settled maxim in midwifery that we do not officiously interfere, still there is a considerable number of cases, that should be treated differently, by the accoucheur, whose judgment and experience are such as to discriminate occasional aberrations which present themselves. For instance, in this case, the common rules did not require at my hand any interference, yet if I had judged of this case a part from such rules, I should have used the forceps an hour before the convulsions came on, because, the parts were prepared, and the pains inefficient; and should thereby, no doubt, have obviated the catastrophe which took place.

That instrumental delivery should not be undertaken without the fullest conviction of its propriety, is as sound a maxim as exists in medical science, but, nevertheless, we are persuaded, that

the forceps are too little used. If the parts are properly prepared for the delivery, there can be no good reason for delay, which can be avoided by using the forceps—the woman may be saved from suffering hours of pain.

*Cæsarean operation successfully performed (Archives Generale de Medicine, Fevrier).* An extract is given from the journal from a late thesis of a Parisian graduate, M. Jolly, giving an account of the remarkable success which his father, a surgeon at Chateau-thierry, has experienced in performing the cæsarean operation. He has operated six times, five of his patients being country women, and the sixth an inhabitant of the town. In all the labor had lasted at least 48 hours before the operation was performed; and the waters had been discharged. In one patient only, of six, no fatiguing attempts had been made by midwives or accoucheurs, to finish the labor. He always made the incision on the linea alba, between the navel and the pubes, and divided the uterus in the same direction, taking care first to restore it to the perpendicular position, if it was inclined. There was never any material hemorrhage; no patient, indeed, lost more than two ounces of blood. In dressing the wound, he always had recourse to gastroraphy, which, instead of producing the ill consequences usually ascribed to it, appeared to him always to contribute greatly to the cicatrization of the wound. In two of the six cases, no untoward symptoms whatever, followed the operation, and the cure was perfected before the month expired; in two others a smart degree of inflammation of the abdomen supervened, but was successfully combatted by venesection, baths and fomentations; and the remaining two died, evidently of metritis, one on the fourth day, the other at a later period, when there appeared every chance of recovering, under the antiphlogistic treatment. Of the six infants, four were born alive and survived; but two were dead after the operation was concluded, although they were thought to have been alive before it was performed. In no instance did hernia ensue; but there was always some prominence of the abdomen, at the cicatrix, which had diminished from six inches in length to three only. This is the most favorable statement which has ever appeared on the subject of Cæsarean operation. (Edinburgh Medical and Surgical Journal.)—[We would just remark that, in a woman which we saw at Hamburg, in 1830, who had undergone this operation twice, there was no prominence of the abdomen. The parts seemed rather to be more unyielding than common.

*Signs of pregnancy obtained by the stethoscope.* In our last number we briefly adverted to the subject of the stethoscope, as a mean to be employed to decide on the question of pregnancy with a view to its forensic bearings—we deem the subject to be no

less important with a view to decide, in some doubtful cases which may present themselves to the accoucheur, in his duties with females of unsuspected virtue.

We copy the following observations from the *Transylvania Journal*, (obtained from the *N. A. Medical Journal*.) "Doctor Ferguson has published an account of his success in detecting pregnancy by means of the stethoscope. He says he has never in a single instance been mistaken; and in one instance only of undoubted pregnancy, was unable to detect the stethoscopic signs. Two distinct sounds may be detected; one arising from the pulsations of the fetal heart, the second from the placenta, which doctor F. refers to the passage of blood in the arteries connecting the placenta with the uterus. The placental noise may generally be found in one of the iliac regions, and in the same subject is always found in the same place. It may be mistaken for the pulsations of the iliac arteries, but the last will be heard, perhaps, in all cases on both sides, and can only be perceived in the groin, while the noise produced by the placenta is heard over some space, perhaps three or four inches square. The fetal heart may often be heard in every region of the abdomen. Although it and the placenta are sometimes heard on the same side, and even in the same spot, yet usually they are on opposite sides; the fetal heart is generally perceived in one of the iliac regions; but, unlike the placenta, it is not always heard in the same place, in the same individual—but it does not vary much from the point where first heard. Its double beat is well marked; and the frequency of its pulsations, is, says doctor F., always much greater, often double that of the mother's.

In the Dublin hospital reports, this subject is treated of by Mr. Kennedy, who agrees with doctor Ferguson, that the placental thrill is owing to the transmission of blood from the arteries of the mother to the placenta. He appears, however, to consider this thrill as important in detecting pregnancy in its early stages, before quickening, and before the pulsation of the heart can be recognized. He has noticed the placental thrill as early as the 10th week, and hence, in many cases, this diagnostic mark of pregnancy becomes extremely valuable—cases to which particular reference is unnecessary.

*Cataract completely formed in a few hours.*—Dr. Wendelstorm relates in the *Årsberättelse om Svenska Läkare Sällskapets Arbeten*, for 1927, the case of a robust peasant, aged sixty, who enjoyed excellent health, suffering only occasionally from slight attacks of gout, eye sight very good, who, while felling wood, experienced a dimness of sight, which gradually increased, and within a few hours terminated in total blindness. He had not the slightest pain or external inflammation. He was seen by Dr. W. a few days after

this occurrence at which time both lenses were opaque and were extracted.

**MISCELLANY.**

A respected friend has called our attention, to a singular inadvertence which occurred in our last number, page 182. Speaking of the term *synechia* as applied by professor Von Ammon, we have said that, "Beer in his *Lehre von den augenkrankheiten*, notices two kinds, the anterior, and posterior—the former being an adhesion of the cornea to the iris, and the latter an adhesion of the cornea to the lens." It was our object merely to mention the fact, that professor Von Ammon uses the term *synechia* in a new sense, without the smallest intention of finding fault with any one. In doing this, we have fallen, somehow, into a singular inadvertence, but not calculated to do any harm; we were intent only upon shewing that the term had been used, at least by professor Beer, to signify disease of the interior of the eye only.

That the whole sentence is deranged by mere inadvertency, is obvious from the fact, that we have said the "latter," that is the posterior form of the disease, is an adhesion of the cornea to the lens, a thing by no means possible. We should have said, the anterior being an adhesion of the lens to the iris, and the posterior, an adhesion of the lens to the uvea.

We thank our friend, for the hint which he has given us, but we feel assured, no candid reader will ascribe so glaring a mistake to any thing but inadvertence.

We are aware, that a considerable number of typographical errors have escaped us, but we believe, they do not destroy the meaning in any case, and can be corrected by the readers.

In cases of wounds of internal parts, the pain is neither so acute nor immediate, as the external, yet, the system sympathizes more. A patient pierced through the body speedily falls, feelings of extreme horror soon succeed, the pulse sinks, the man is pale, the extremities soon grow cold. If the patient survive, and unless the injury is too overwhelming, reaction comes on, and we have added to the general disorder agonizing pain in the part affected of an obtuse and depressing kind.

I have elsewhere said that inflammation cannot take place in certain parts till they have taken on the irritation of sensation. Something of this law prevails in the esophagus, and stomach. It has been demonstrated that some persons drink their tea sufficiently hot to scald the hair off a pig's tail, and I have been credibly informed, that, a man I once knew, has been known to draw coffee from the spout of a boiling vessel. I have seen a hot morsel produce syncope, and no bad effects followed. I also once saw a pet bear chewing and swallowing bread, which he had just obtained by turning a loaf from a kettle, in which it was baking; and although it was done amid terrific howlings, he proceeded till the bread was wrested from him.

From actual experience I know that the stomach, having taken on high inflammation, becomes morbidly sensible, in the superlative degree. In so much that a mouthful of bland liquid will occasion agonizing pain. In such cases the exhibition of any thing like medicine, or food, not only becomes inadmissible, but will often destroy patients who might be saved.

Notwithstanding that pain is almost always a prominent symptom of inflammation, still there are exceptions; and some of the most painful affections are in general unaccompanied by inflammation, as we see in toothach; sometimes in the earach of children; and in that distressing nervous affection, now familiarly known by the name of *tic douloureux*.

The second phenomenon to be noticed as being considered a constant attendant of inflammation, is the redness. I have been led to believe, that the foundation of an error which has prevailed, more or less, down to the present time, was laid by Galen, who has described the phenomena of phlegmonoid inflammation so clearly, as to have left little room for improvement. But by turning the attention of the profession to redness as one of the uniform symptoms of inflammation, they were led to overlook a large group of inflammations of the phlegmatic kind, which are distinguishable by the circumstance of being as constantly free from redness, as phlegmon is attended by it.

One of the most remarkable distinguishing circumstances between phlegmatic and phlegmonic inflammation, (these are terms which I shall hereafter explain,) is this. In cases of the former,

the effusion, which mostly occurs, is internal to the cutis vera; and there is no direct tendency to the fluid finding its way to the surface. To this there are some seeming exceptions, but if we attentively consider the matter, we shall find that all serous external effusions, if retained for some length of time, become purulent, as we see in variola, varicella, and in blisters from cantharides. In cases of phlegmonic inflammation, unless very deep seated, there is external redness, sometimes extensively diffused, and in almost every case, where the pus approaches near the surface, more or less of the skin is discolored. Then, redness, and a constant tendency to the surface, almost invariably attend cases of phlegmonic inflammation; while whiteness, or exemption from color, unaccompanied by any direct tendency to the surface, characterizes phlegmatic inflammation.

We must not lose sight of the fact, that there must be something morbid in the redness accompanying inflammation. We see persons having naturally a redness of the entire skin, which to others could only exist as a disease. We see also a redness of the cheeks in some persons, of the lips, of nearly all, which on other parts would be indicative of disease.

The difference seems to be this, in the one case, the redness is the result of a natural and healthful action of a part, which in the white man is made in good degree the index of the general health; and adds favorably to his appearance. Redness suddenly induced by injury externally applied, or some morbid principle within, seems to proceed from some impairment of the nerves of the part. Most of the external openings, as the mouth, nostrils, urethra, rectum, &c. are naturally of a pretty deep red color, and any considerable palor of these membranous surfaces; or of the tongue, in a state of disease, is mostly indicative of much danger. But acids, particularly vinegar, applied to these parts will produce a whiteness, which might lead us into error of opinion.\*

It has been held by Baron Boyer, and others, that when we prick the diaphanous web of a frog's foot, the blood flows in upon the centre of irritation or part injured. The appearances upon which this opinion is founded are very plausible, but further observation is necessary to decide whether the opinion be a correct one. I have been led to believe, that, if this be a correct notion of the cases cited, there are others, bearing a near similitude, in which certain relations stand differently. If we select an infant having a thin very white skin, and examine a vaccine pock on its arm, at the period the efflorescence is extending, mostly on the tenth day, we shall readily observe the redness extending in a pulsatory manner, and gradually extending from the

centre of irritation, to the circumference. This is truly one of the most interesting little experiments that I have seen. There is to be seen a wave-like scintillation, moving from the centre to the periphery, showing, I think, that the blood is driven from the centre, and not invited to it. And this, probably, obtains in all cases. We are not to imagine, that it is by meeting less resistance that a sort of invitation is given to the blood. I think, an opposite law is easily demonstrable. When we press a finger of one hand in the other hand, we readily discover an increased action of the arteries—when we lay the ham of one leg upon the knee of the other, the popliteal artery will beat so as to raise the foot, and it is said a considerable weight will be moved. (See Blumenbach.) If we uncover an artery, and thus take off the resistance, it will scarcely beat at all. This was well known to Mr. J. Hunter. It is probable then, that where some injury is done by a wound, or lesion of some kind, the nervous influence being disturbed, there is opposed an obstacle to the free ingress of blood. By a law of the system, reaction (which is in many other cases understood,) takes place in the arteries, and an influx of blood is a consequence. In this way we may readily account for the fact, mentioned by Mr. J. Hunter, that by freezing the ear of a rabbit, so much as to lead to considerable inflammation, the vessels were much enlarged, as he ascertained by injecting the ear and drying it.

The nervous influence suspended by an injury, the plastic powers of the part must be interrupted, there must be surcharge, because it is the operation of the plastic power which keeps up the healthful circulation in the capillaries, at least so far as relates to the terminal vessels, yet to be noticed. This surcharge creates a resistance to arterial action. This resistance gives rise to reaction, and increased flow of blood is the consequence, so that instead of reaction being a salutary operation, it must for a time inevitably increase the confusion, and diseased action. Mr. J. Hunter imagined that new vessels were often formed during inflammation. If such a state of things does ever occur, it must be extremely rare, and it is probably confined to indurated structures. That new vessels are speedily formed, in internal inflammations, and in fungous tumors, is too obvious to admit of doubt. But in inflammations, which terminate by resolution or suppuration, nothing of the sort is ever seen. It is confined to the adhesive inflammation.

The third phenomenon which has been noticed as characteristic of inflammation is the increased heat of the part. The experience of Mr. J. Hunter and others show us, what we should not have suspected, that, in no case is the heat much increased. Our author found that the heat of inflamed parts never exceeded

the heat of the blood at the heart. He excited inflammation in the inward parts of different animals, and found but a degree or two of increased temperature. In the case of a man, who had been operated on for hydrocele, he found the day after the operation, that there was an increase from 92 to 98 degrees.

To the touch of the patient, and also of other persons, there seems in many cases to be a much greater increase, than is shown by the thermometer. This circumstance may, in considerable part, be attributed to a peculiar affinity between the animal heat of one person and that of another. And it will be found that the touch will discover greater variation between a part of the human body at 90, and 92, or '3, than between pieces of metal or wood heated to those different temperatures. In the first case we should readily perceive a marked difference, in the latter almost none.

It was found by Mr. Hunter that parts advanced most rapidly to suppuration, as they are more vascular, and nearer the heart, and consequently, suppuration soonest occurs in these parts. And our experience teaches us, that heat and moisture greatly conduce to suppuration.

The preternatural heat which accompanies inflammation raises one of the strongest objections to the beautiful and ingenious theory of animal heat, by Dr. Crawford. What answer shall we give to the question—if animal heat is elicited in the lungs, whence comes the heat of inflamed parts? It may be proper to remark here, that a preternatural amount of heat, almost uniformly attends phlegmonic inflammation, but in the phlegmatic it does not exist to any considerable extent, except in the most painful varieties. In phlegmasia dolens it prevails, in dropsy it does not generally.

The fourth and last phenomenon which is found to attend most inflammations is swelling. There is great diversity in this sign of inflammation. If a person be struck violently with a weapon having a round or flat surface, a tumor almost immediately forms, showing that the capillaries are much disturbed. The tumefaction has in these cases been correctly attributed, by Mr. Hunter, to effusion of lymph or serum, or both. And it would appear that as one or the other preponderates, so will the case be more or less evil in its tendency. Where parts are cut, or slightly bruised, lymph is freely afforded; and in the event of the division of parts, this lymph becomes the medium of restoration. In cases where its restorative power is not wanted in this way, it probably is disposed of by the vessels, partly in the ordinary process of assimilation, and partly by the absorbing vessels. Where suppuration is taking place, the lymph seems to be converted into pus.



In phlegmatic inflammation the tendency to the formation of serum seems to prevail, and tumefaction succeeds, and the serum commences its lodgment in the capillaries, producing there a state of engorgement; and this increasing, a fluid collection takes place, so that, in both ways we may have tumefaction. And it seems to be one of the characteristic differences between phlegmonic, and phlegmatic inflammation, that in the former, the tendency to the effusion of lymph prevails; and in the latter the effusion of serum obtains.

It seems to be unnecessary to pursue this inquiry further in this place. When we come to notice particular varieties of swelling, I may enter more at large upon its nature. But it seems proper further to remark, that all swellings of considerable magnitude are occasioned by induration, or the effect of some derangement of the capillaries. Several varieties of inflammation are mostly unaccompanied by swelling, such as erysipelas, porrigo, &c. of all which some notice will be taken in proper place.

One of the most usual concomitants of inflammation is its tendency to bring into consent the general system. And no sooner is the general economy invaded, than the augmented action of the vessels of the parts, have superadded an increased action of the heart and arteries. And hence the necessity for vigilance, in regard to this circumstance, that we may lessen arterial action, by venesection, purgatives, abstinence, and other debilitating means.

We may next notice the opinion which has been held by some, that instead of there being an increased action of the arteries of inflamed parts, as maintained by Mr. Hunter, the arterial action is reduced in force. Among the advocates of this theory may be named Vacca, Allen, Philip, and Boraston.

Professor Thompson undertook to decide this controversy by experiment. He came to the conclusion that neither state was essentially necessary for the formation of inflammation; and that both states sometimes prevailed. He would, therefore, exclude this from the essential circumstances of inflammation.

Fortunately this is not a matter of any practical importance; the treatment is well understood. And we may, I think, claim for the opinion of Mr. Hunter, at least greater plausibility, from the fact of the treatment being suited most generally, to the reduction of arterial action.

I am pleased with the following remarks of Mr. Samuel Cooper:—"It is difficult to come to any settled conclusion about the state of the circulation in the capillary secreting vessels, from which the coagulating lymph and serum are thrown out. But

we are to remember, that the arteries have other extremities by which they communicate with the veins, and that the veins as well as these small arteries, which run into them, are increased in size. This very change is itself a strong argument in favor of the opinion of Hunter, and the greater part of the moderns, that the blood circulates through an inflamed part with increased velocity, and in a greater quantity than natural. If the arteries were simply loaded with blood, which could not readily pass into the veins, surely these latter vessels would not be enlarged. And with respect to the increased action of the vessels in inflammation, I understand by the expression, spontaneous augmentation of their diameters, the throwing out more of the coagulable lymph, serum, &c.; and by no means an alternate expansion and contraction of them, in a greater degree than natural. We know of no power by which any set of arteries could thus momentarily, and repeatedly be expanded in a degree beyond what happens to the rest of the arterial system; and, as to the more forcible contraction, I see much reason for thinking, with Hunter, that the thing cannot occur, because "the muscular coat of the vessels, in inflammation, appears to be thickened." This is certainly a plausible view of the subject. It is one to which I fully subscribe.

There still exists considerable difference of opinion among authors, whether in the increased action of the arteries, in inflammation, there is an actual increase of action, by greater dilatation, and relaxation of those vessels; or whether, by an increased action, we mean a dilatation and extension of calibre equally durable with the inflammation. Wilson Philip advocates the opinion that there is an increased action connected with the systole and diastole of the arteries. But professor Thompson and doctor Parry support the opinion of J. Hunter, who, while advocating increased action of inflamed parts, says, "that in inflammation the muscular coats do not contract." He thinks that the muscular powers give way in inflammation gradually, in consequence of a gradual distention, which eventually destroys their power of contraction, till the parts are in the way of recovery. And he considers this alteration in the arteries something more than a mere relaxation. He supposes "it an action in the parts to produce an increase of volume, for peculiar purposes." He resembles it to the increased size of the gravid uterus, to the increased size of the spermatic arteries, of certain animals in the rutting season, and calls it the "action of dilatation." I have already explained how irritation leads to resistance in the capillary circulation; how this resistance provokes these arteries to greater action; how this greater action with interruption of the plastic powers, leads to surcharge; and thus is the way gradually

laid for the enlargement of the vessels, and consequently there is a greater quantity of blood circulated in a given time, generally speaking. But, we can readily imagine, that if there be not an enlargement of the capillary veins correspondent to that of the arteries, there may be an actual retardation of blood in the part. And this increased action in the supplying arteries grows out of the resistance made by the surcharge in these arteries. Again, the quantity of blood which can circulate through an inflamed part, in a given time, may be influenced by the more or less facility with which the blood is decomposed, and separated into lymph, serum, &c. since it is obvious, that as changes of this kind are going on, the blood cannot be received into a part faster than it can be disposed of. In this case too, the same resistance is opposed to the arterial forces which excite an increase of action by greater dilatation, (I mean permanent dilatation,) in the supplying arteries. The solution to the difficulty raised by the experiments, and observations, of professor Thompson, tending to prove, that in inflamed parts there is sometimes increased, sometimes diminished action of the arteries, may be explained in both cases, in this way. All inflammations commence in increased action, but by unusual violence, or long continuance the arteries of the parts, by over distention, lose their tone and strength, but the supplying vessels continue a state of repletion, and the arteries of the part become passive.

We have a strong proof of the accuracy of the opinion of Mr. Hunter, that increased action consists of a greater supply of blood, without increase as to systole and diastole, in the fact, that, in cases of ophthalmic inflammation, with injection of the vessels of the cornea, however prominent the arteries, we cannot discover any pulsation.

Upon the whole then it is clear, I think, that no definition can be laid down sufficiently expressive of inflammation, without inquiring into all the phenomena which attend it in its various forms. To give a definition of this affection, is to recite the phenomena which attend it in all its varieties. So that a true and complete definition will, in reality, embrace the whole which we have to say upon inflammation. There are, however, signs or phenomena more characteristic than others, of at least whole classes of inflammations. It, therefore, seemed proper that in commencing our observations upon inflammation, we should offer some remarks by way of definition. This, I trust, has now been done to sufficient extent. And having made this preparatory step, I shall hereafter take up the subject of the proximate cause of inflammation, &c. &c.

**ART. II. *Observations on a peculiar Venous System which exists in many animals.*** By LUDOVICUS JACOBSON, *Med. et Chir. Dr. et Professor; Memb. Societ. Reg. Scientiarum Hafn. et Medicin. etc.*

[It will not be doubted, we think, by those who are conversant with the subject, that comparative anatomy has been made to shed much light upon our physiological investigations.

Whatever objections may be made to the cruelties which have been practised upon brute animals, there can be no objections to experiments upon their bodies when dead; and nothing is more certain, than that much light has been thrown upon anatomy, physiology, and pathology, by the experiments of naturalists in modern times.

The names which may be associated with this interesting study, serve to give it no small degree of importance. If there was room for Haller's believing, as he did, that physiology had received more improvement from comparative than human anatomy, in his time, how much room is there for attaching importance to this study, now that we have seen so many great men engaged in the study of it, in all countries where medical science is cultivated, that it would be supererogatory to name them? Indeed, it may be said, that for the last few years no one has attempted the cultivation of physiology without engaging in comparative anatomy.

We may further mention, that professor Blumenbach, in his late work upon comparative anatomy, notices the investigations of professor Jacobson, without, however, adopting or rejecting them.

Physiology being still in a state of progressive improvement, we have been led to believe, that the paper of our friend professor Jacobson, will be considered as replete with very curious and interesting matter. The author has been so good, as to put into our hands his interesting pamphlet, which he has published in the Latin language.]

Some anatomical investigations, which occupied our attention for a long series of years, led us to discover, a new, and, as yet, unknown system of veins, which obtains in a large number of animals. Our first observations were offered to the Philomathic Society of Paris, but the more recent, to the Royal Society of the Sciences, of Copenhagen. Although we have been prevented by many causes for the present, from publishing these observations, prepared with that attention which we would desire; yet, we have thought proper to subject the first lines of this venous system, to the examination and criticism of the learned.

In man and all other mammalia animals, all the veins, the *vena portarum* excepted, are so arranged, as to form a single and uninterrupted system, which carries back the circulating blood, from all parts of the body, to the heart.

In these animals the veins which run from the lower to the superior parts of the body, unite in a common trunk. By which circumstance, the *vena cava inferior* is formed, and the blood carried directly to the heart.

But that kind of system does not hold good among other vertebrated animals. A new and peculiar system of veins exists, which is not directly united with the other veins of the body. By the aid of veins, of which that system is composed, the blood which flows back from the middle or posterior part of the body, does not flow uninterruptedly into the *vena cava inferior*, and then into the heart, but it is carried into the kidneys, or the kidneys and liver.

In birds, reptiles, and fishes, this system is observed, and its primary form runs into *three grades of modifications*.

The first modification, which is considered the *prototypon* of the others, shows those species. Branches arise from the skin and muscles of the middle part of the body, forming many trunks, which run separately into the kidneys; and, in their substance, again divide, and ramify, into numerous branches.

The second modification arises thence, because the veins which go from the posterior part of the body, are received into this system. The *vena caudalis*, which carries the blood from the skin, and muscles of the posterior part of the body, separates into two branches, which, after receiving some veins from the middle region of the body, flow into the kidneys of either side, and distribute their branches into their parenchymatous structure.

In the third grade of modification, the veins of this system are formed in the same manner as the preceding, unless the *vena caudalis*, or another vein returning from the posterior parts, sends off a branch to the *vena portæ* also. The blood flowing from the middle, and posterior regions of the body, in the first and second modifications of this system, is carried to the kidneys only; but in the third, to the kidneys and liver.

The *vena cava inferior*, of the common venous system, in the second and third modifications of this system, is formed of the returning veins of the kidneys, and of the veins of the testes or ovaria.

In the first modification, the *vena caudalis* receives the returning veins of the kidneys, and is united with the veins of the testes or ovaria, and in this manner forms the *vena cava inferior*.

Now, in what manner this singular venous system is formed, in various classes of animals, we shall endeavor briefly to explain.

In *fishes*, this venous system appears in all its modifications.

In many kinds of fishes, where the system of veins is formed according to the first modification, all the blood of the skin and muscles, which constitute the middle region of the body, from the head to the root of the tail, is received by venous branches. These, coursing in many single trunks, run in a varied course to the kidneys, as to a common centre, and ramify in their parenchyma.

The *venæ caudales* pass off into a common trunk, which runs between the kidneys, where, when they have received the recurrent veins, together with the veins of the testes and ovaria, they form the *vena cava inferior*.

Which modification is, as I may say, the prototype of this system of veins, since the branches of which it is composed are wanting for the most part in the other modifications. A venous system thus constituted, is found in many genera; *exemp. gratia*, *cyprino*, *clupea*, etc.

Another modification is certainly very frequent in fishes: for all the blood of the posterior, and very frequently even of the middle region of the body, flows to the kidneys. The *vena caudalis* as soon as it arrives at the kidneys, divides into two principal branches, which are distributed throughout the kidneys, except the single trunks of the middle region of the body.

Those genera are endowed with larger kidneys, where a part of the veins, as single trunks, run off from the middle region of the body to the kidneys.

The *vena cava* arises thence, because the veins returning the blood from the kidneys, (*venæ renales* strictly so called, *S. venæ renales revehentes*,) unite with the veins of the testes and ovaria.

In the Ray, Skate, Salmon, (In *Rajis*, *Squalis*, *Esocibus*, etc.) this system of veins is thus arranged.

The third modification, nearly similar to the first one, differs from it in one thing; that the *vena caudæ*, in addition to the veins passing off to the kidneys, sends a large branch to the *vena portarum*, so that the blood of the posterior and middle parts of the body may be carried partly to the kidneys, and partly to the liver. The *vena cava* presents the same formation in fishes, whose venous system is formed according to the second modification. That, however, is more rare in this class of animals, and are known to us as yet, only in the *Muræna*, and the *Sophium*.

In all amphibiæ, this venous system follows the third modification; that is, as are the posterior extremities, or the tails, greater, of such animals, so is the system varied.

Moreover, the organon, proper to the class of amphibiæ, affords some veins to this system. The organon is a double membranous sac, looking into the *cloaca*, and very frequently containing a pellucid liquor, or it is an oblong membranous sac, filled with fat, but united with the *cloaca*.

Let us now take a brief survey of the various genera of these animals, that the modifications of their venous system may be illustrated.

*Ophidii*. In these amphibiæ, there is a peculiar organon formed of two elongated membranous sacs, filled with fat. The system of veins is formed from the vena caudalis, which goes divided to the kidneys. The returning venal veins afford an anastomosis with the vena portæ. The veins of the peculiar organon, and of the anterior abdominal muscles, form, a primary trunk, which runs into the vena portanum above, as it enters into the liver. But, afterwards, it enters into this organon, whose lesser venous trunks it receives, from the anterior abdominal muscles.

The vena cava arises from the renal veins proper, which join with the veins of the testes or ovaria.

*Saurii*. The peculiar organon of these is a membranous and cellular sac, filled with fat; and located on both sides of the inferior part of the abdomen.

The vena caudalis unites itself with the vena ischiatica, and a branch of the crural vein. Another branch of the vena cruralis, coursing with an analogous branch of the other side, receives veins which arise from the peculiar organon, and the inferior abdominal muscles, extends to the vena portæ, and pours out its blood into it, before it enters the liver. Some veins coming out from the anterior part of the abdominal muscles, pass through the liver, and flow into the trunk of the vena portæ. The vena cava is formed as in the animals just mentioned.

*Chelonii*. The organon of this genus exceeds the others in magnitude. Its texture is a cellular membrane, extending through the whole inferior part of the body, and filled with fat.

The vena caudalis, united in different ways, with a vein of the posterior extremities, forms the renal vein of either side. The other crural veins, with veins from diverse places, returning from this peculiar organon, make partly the renal vein, secondary and auxiliary; and, they pass off partly to the inferior parietes of the abdomen, either separately, or united in the superior part, to the liver; and, there they join the vena portæ.

The vena cava is composed of veins returning from the kidneys, and testes, or ovaria, in the same manner as in other animals.

**Batrachii.** The organon of these, contains a membranous sac united with the cloaca. The vena caudalis, which is small, joins itself with the vena ischiatica, and an anastomosing branch being received from the crural vein, forms the entering renal vein. Another branch, arising from the crural, runs to the inferior part of the abdomen, and there becomes associated with an analogous branch of the other side; it receives returning veins from the peculiar organon, and forms a common trunk, which, after receiving veins, arising from the muscles of the inferior parietes of the abdomen, flows into the vena portarum.

The formation, and origo, of the vena cava inferior, is the same as in other amphibiæ.

In the class of *birds*, we find this system of veins, adorned and constituted according to the third modification. It behoves us, however, to observe the few variations, and those of lesser importance. But in these animals a transit to the mammalia animals is observed, since our venous system is united with the common.

The vena caudalis, the ischiatic and crural united in various ways, flow to the kidneys, and there send off their branches, giving off a larger branch to the vena portæ.

But the vena cruralis, the superior branch being sent to the superior lobe of the kidney, and the inferior being united with the vena ischiatica, sends off a middle branch, which goes to the vena cava.

This vein, as in animals of the first class, is formed of the returning veins of the kidneys, and veins of the testes and ovaria: and after an anastomosing branch has been received, arising from the crural, forms a trunk. All the blood therefore, which, in birds, flows from the posterior part of the body, is carried partly to the kidneys, partly to the vena portarum, and another small portion is poured directly into the vena cava.

This system of veins in animals of different classes, which differ in many respects from one another, in structure and organization, exhibits a perfect and absolute analogy, of composition and organization.

From accurate anatomical examination, and many experiments instituted among living animals, I have been persuaded, that the venous system wants this faculty, *that it may conduct the venous blood, flowing back from the posterior or middle parts of the body to the kidneys, or kidneys and liver, and in these organs, regulate the functions of secretion.*

Hence in birds, reptiles, and fishes, the secretion which is formed in the kidneys, is effected by the aid of the veins and the blood.



As to the origin and formation of this system, examinations instituted among the *embryones* of birds, and some amphibiz, have taught us, that it owes its origin to the omphalomesenteric veins. Therefore, this system, it is probable, begins first, to exercise its functions among all animals having this arrangement of veins.

Moreover, we have continued our examinations among animals of inferior orders, and, we have observed, in *mollusca*, that many veins go to the organon, which is called *sacculum calcarium*, and there ramify; and there is a fluid, secreted by this organon which contains, in *malluscis gasteropodis*, a large quantity of acidum uricum; wherefore, we would consider this organon analogous to the kidneys, of vertebrated animals.

As in many insects we have found the *vasa biliaria*, so called, to abound in uric acid, so these *organa* appear to be received into the same order.

ART. III. *The Magazin der Ausländischen literatur der Gesammten Heilkunde, &c. zu Hamburg, for May 1831, contains the following interesting report, of the patients admitted into the King Frederick's Hospital, at Copenhagen. [We had the pleasure of hearing the report read, at the Medical Convention, held in Hamburg, in September, 1830, but had not time to procure a copy.]*

This report consists of an abstract view of the cases of mania à potu, admitted during the term of four years, but the object of it is to collect from the books of the house, all the cases of delirium tremens (säferwhansinn,) during the said term.

Professor Bang tells us that during the period of four years, from 1826, to 1829, there were nine thousand admissions—showing that this is an institution of very considerable extent. We had the pleasure of seeing this institution in excellent order, through the politeness of our friend professor Withusen, in the year 1830.

We have said it was the object of professor Bang to present, to the convention, at Hamburg, an abstract of the number of cases, of mania à potu, and of the treatment employed in the disease. In doing this, he announces the astonishing fact of four hundred and fifty eight admissions, in four years, and the more astonishing, from the fact, as we believe, that drunkenness is by no means very prevalent at Copenhagen; at least we spent

several days there without meeting, in the crowded or retired streets, a single individual who was intoxicated. Such facts are truly important, in as much as they show well marked peculiarity of the diseases at Copenhagen, where we find a remarkable tendency to affection of the brain, whenever the system is thrown into a morbid condition.

We have not thought it necessary to copy the extensive tabular view, presented in the report, in all its detail, but shall copy so much as we deem more particularly interesting; but before we proceed to the particulars, in relation to delirium tremens, we may notice the fact, that, typhus fever and consumption, are said to be the most prevalent diseases admitted at the King Frederick's hospital in Denmark.

The sum total, admitted in the month of January, for four years, was thirty-nine, of whom nine died.

For the month of February, for four years, twenty-eight, of whom nine died.

For the month of March, for four years, twenty-three, of whom five died.

For the month of April, for four years, thirty-five, of whom twelve died.

For May, for four years, forty-four, of whom eleven died.

For June, for four years, forty-four, of whom seven died.

For July, for four years, fifty-four, of whom twelve died.

For August, the same term, thirty-nine, of whom twelve died.

For September, the same term, thirty-two, of whom four died.

For October, the same term, thirty-nine, of whom four died.

For November, the same term, thirty-nine, of whom ten died.

For December, the same term, forty, of whom five died.

Making a total of 338 recoveries, and 98 deaths. Of these, being together 436, there were cases complicated with

Bilious fever, twenty-five, of whom four died.

Bilious fever and inflammation of the breast, sixteen, of whom three died.

Typhus, sixty-eight, of whom thirty nine died.

Typhus and inflammation of the breast, seven, of whom four died.

Inflammation of the breast, forty-eight, of whom seven died.

Inflammation of the brain, twenty, of whom two died.

Inflammation of the liver, ten, of whom three died.

Epilepsy, twenty-eight, of whom two died.

*Gerichtrose*, (rose of the face,) six, of whom none died.

Cholera, sixteen, of whom two died.

With vomiting, twelve, of whom one died.

Cases, not complicated, one hundred and ninety-seven, of

whom twenty-five died. Making, together with six that came in moribund, four hundred and fifty six cases, which is one hundred and fourteen for each year.

The following is a list of the professions, or occupations, of the above list of patients.

Laborers, seventy-nine.—Literati, thirty-four.—Watchmen, twenty-five.—Smiths, twenty-nine.—Seamen, twenty-four.—Butchers, twenty-one.—Wagoners, nineteen.—Vintners, seventeen.—Merchants, seventeen.—Shoemakers, fourteen.—Unknown, one hundred and five.—Servants, sixteen.—Masons, twelve.—Millers, eight.—Bakers, seven.—Military, six.—Distillers, six.—Taylors, four.—Weavers, three.—Among whom the greatest mortality was among the laborers, the next the unknown, the third in amount of proportional mortality, the smiths. We see that there are but few of some trades, but proportionally the mortality is least among the literary class of patients.

In a summary of the medicaments employed, we are told that there were bled, thirty-eight.—Leeched, one hundred and twenty-two.—Cupped, forty-four.—Nitrate of potash, two hundred and ninety-eight.—Shower-bath, sixty eight.—Cold topically, ninety-eight.—Purgatives, ninety three.—Sinapisms, seventy-eight.—Blistered, one hundred and eleven.—Muriate of ammonia, twenty-three.—Sulphuric acid, thirty-one.—Camphor, thirty-five.—Musk, twenty.—Valerian, fifty-two.—Emetics, forty-seven.—Opium, one hundred and twenty-three.

All the above articles are presented in a table without reference to the question of combination of the different remediate articles—taking the remedies, as thus presented, there is a slight difference in favor of opium. We are told that the doses of opium varied from two grains to forty-eight; and, one case is put down as having recovered after taking such a dose.

The diet of the patients was mildly antiphlogistic, suited to the disease of the patients; and in complicated cases suited to the circumstances present.

Among the post mortem examinations, there are of arachnitis, eight.—Hydrops of the ventricles, five.—Disorganization of the lungs, four—of the heart, two—of the liver, four—of the intestines, five. We believe that in this country the amount of hepatic disease is vastly greater than that reported above, among persons of intemperate habits.

The subjects of the foregoing remarks were aged from twenty to thirty, fifty-five—Thirty to forty, one hundred and sixty-six—Forty to fifty, one hundred and fifty-nine—Fifty to sixty, sixty-one—Fifty and sixty, fifteen. Thus it appears, that the period between forty and fifty is that in which the inhabitants of Copen-

hagen are most subject to drunkenness, and those between thirty and forty in nearly equal degree—of the 456 patients noticed, ten were females.

Professor Bang tells us that while he feels it his duty to forewarn his countrymen from the practice which leads to drunkard's madness, he has to add, that there was clearly manifest an epidemic tendency to this disease, at the time of his observations. And in his remark upon his tabular abstract, he informs us, that the greatest number sickened in the month of July; the fewest in March.—Most deaths in February; the fewest in October.—This may be accidental, but every fact of this kind deserves notice.

It is said that the most usual and prominent symptoms of the disease, witnessed by professor Bang, were insomnolence, tremblings, wanderings; a small trembling pulse, and great weakness. There were 114 relapses among the 456 cases recorded in this paper, of these one in eight died.

However strange it may sound to some ears, for ourselves, we fully concur with professor B., that even delirium tremens may be under something of an epidemic influence—indeed, there are few diseases that do not sometimes show such an influence of the atmosphere.

Among the remarkable occurrences of this kind, which we have noticed, is that of seeing cases of menorrhagia so common some years ago, for a few months, as to induce us to believe there was an atmospherical peculiarity, operating on the female habit. In another instance, which came under our notice long since, at Shippensburg, in Pennsylvania, there were ill-conditioned, and sometimes fatal phagedenic ulcerations behind the ears of young children. Doctor Horner, (now professor,) informs us that during the late war, carried on in Canada, between England and the U. States, wounds were disposed, in a peculiar manner, to run into gangrene, and to be filled with worms.

Indeed, it has long been our settled opinion, that it is from such a state of things that we derive our measles, scarlet fever, quinsies, dysentery, and perhaps other diseases.

We have elsewhere recorded the fact, that, in some years, hydrophobia was so prevalent among dogs and foxes, as to render it highly probable, that there was a state of the atmosphere, predisposing to that disease. We are the more disposed to insist upon this opinion from having formed the opinion that this is a neglected subject; and has been the cause of the greater share of discrepancy of opinion and facts—all diseases appearing under different livery at different times.

**ART. IV. *Case of Extirpation of part of the Uterus, reported by DOCTOR BELLIN, at the Hospital at Rovigo—taken from the Magazin der Ausländischen literatur der Gesammten Heilkunde, &c.***

[THE operation for the partial extirpation of the uterus, when in the state of scirrhus, has become so common on the continent of Europe, that it becomes every day a matter of greater wonder, that no surgeon, within our recollection, has successfully performed this operation in America; and, yet, it must be confessed, that many, very many, of our females die annually, in all ranks of life from scirrhus of the womb.

We have already noticed, in this journal, some of the cases which have had a favorable termination, in the hands of Ossander, Lisfranc, and others. Why is it that the profession fold their arms, and let patient after patient suffer for months, all the horribly appalling consequences of scirrhus of the uterus, without attempting to save them, because the operation is one of danger, of difficulty, and attended with some uncertainty? Who is there that is experienced in these cases, that can witness the agonizing pain, and the wasting hemorrhages, which so constantly are seen to carry females with unerring certainty to the grave, and not shed a tear of pity?

As things now stand, we are aware that a surgeon however competent to the task, or willing to incur any ordinary responsibility, dare not venture to recommend this operation. Almost every physician, and almost every friend, either revolts at the supposed daring proposal, or thinks he is acting the part of humanity to dissuade from this operation.

Among the difficulties attending the surgeon, is the fact, that no patient, or physician, thinks of calling the surgeon in till the last stage of the disease, and, even then, too often it is only to lay a share of responsibility upon the surgeon. There can be no doubt on the mind of the experienced surgeon as to the propriety of this operation, under suitable circumstances, since hundreds yearly are consigned to the tomb, victims to this remorseless and fatal disease. There is a period, we believe, when many, if not most of the victims, sacrificed to a mistaken humanity, could be saved by extirpation of the cervix uteri, since in perhaps ninety-nine cases in the hundred the disease commences in the cervix, and there lingers sometime, now and then for months, nay, for years, before the uterus is generally affected. Notwithstanding this opinion, formed after long deliberation, we should feel an almost insurmountable objection to proposing this operation to a physician, a friend, or a patient—indeed, we would

only venture to give it, at present, to some dear and near friend, who could not suspect us of cruelty.

We have been led to these reflections by reading the case of doctor Bellin, which we shall now translate:] "L. Ravanello, one and twenty years of age, and mother of five children, labored eight years under prolapsus uteri. In the month of July, 1828, she was admitted into the hospital at Rovigo. During the last eight years she aborted once, and was delivered of a dead child. During the gestation the uterus rose to its proper situation, but immediately after the birth of the child it again presented. During about four years the womb became harder, and larger.—The catamenia were irregular, and finally ceased entirely. The uterus was rough to the touch, very hard and heavy; and the least movement of it occasioned extreme burning pains, and the evacuation of the bladder, or rectum, gave violent pain.

"July 24th the following operation was performed. The uterus was drawn down forcible by means of strong short forceps, and the *labia* being held asunder, a convex bistoury was employed in separating greater part of the womb, so that the part removed was tubular (rohrförmich,) and the part left behind, hollowed out so as to have the form of a diaphragm. By this method was avoided the risk of wounding the bladder and peritoneum. The peritoneum was not at all injured. Immediately after the excision of the uterus there were severe vomiting, and fainting, followed by hemorrhage. The vagina was filled with a tompion of charpie, wet with cold water and wine vinegar. There were at this time tinnitus aurium, and violent pain in the belly. The compresses were secured by bandage. It was necessary frequently to change the charpie. So soon as the compresses were pressed up pretty forcibly the hemorrhage ceased. Yet it was thought proper to apply a bladder containing ice to the abdomen. During forty hours that the tompion remained in the vagina, the patient was restless, nauseated, and faintish. On the third day there was a discharge with much relief. The suppuration was moderate, and ceased in fourteen days. The patient remained four weeks more in the hospital, and walked home with ease, the distance of five miles.

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ART. V. *On the Utility of the Secale Cornutum as an Uterine excitant.* By WILLIAM HENDERSON, Esq. Surgeon, Costorphine.

[We copy this interesting article from the Edinburgh Medical and Surgical Journal for July, 1831, to which we mean to append a few remarks.]

In the course of my professional attendance upon cases of midwifery in the country, I have often had much occasion to regret the great loss of time a practitioner experiences in protracted labors, and much reason to wish that some safe and effectual means could be devised to accelerate the progress of uterine action. From the observations of doctor Benton, published in this journal, upon the use of the *secale cornutum*, I was led to try the effects of that medicine; and having had many opportunities of putting its efficacy to the test, I beg leave to transmit the result of my experience upon the subject.

The first case in which I had occasion to use it, occurred in a young woman in her first confinement. When I was first called, the uterus was dilated to about the size of a half crown, the pains were weak, irregular, and slow. The uterus was flaccid—the external parts soft, and not in the least degree rigid—the general habit of the woman very relaxed, so that a speedy labor might have been expected if the muscular contractions of the uterus had been regular or powerful. The labor continuing in this lingering way for twelve hours, I gave her two doses of the *secale cornutum* in infusion, with half an hour's interval. The pains immediately quickened after the first, and powerfully after the second dose, and continued to go regularly on, when she was safely delivered within the hour.

In another case which occurred about this time, in a woman who had a large family, and whose labors were but slow, one dose of the medicine in infusion had the effect of bringing on uterine action, and terminating the labor within one hour. This woman had for twenty four hours slight irregular aching pains in her back, with no effect on the *os uteri*, which was but slightly dilated when she got the medicine.

The third trial I made of it was on a woman in her third labor—the pains were weak and irregular, and continued for twelve hours—the *os uteri* was dilated about the size of a crown, soft and thin. The interval between the pains were from ten to fifteen minutes. Two drams in powder had the effect in ten minutes of strengthening and quickening the uterine contractions to every three minutes, and the woman was safely delivered, in about an hour and half from the time of taking the medicines, of a child, and in an hour afterwards of a second.

Encouraged by the result of these cases, I have embraced every opportunity of trying the *secale cornutum* in lingering labors; and having had extensive and frequent occasion for its employment, the following observations may not be uninteresting to some of the readers of your journal.

In the first place, the *secale cornutum* appears to be a powerful uterine irritant. It has never, in my experience, failed to

excite uterine action; and I have tried it in at least from thirty to forty cases. If it was necessary, I could add many more to the three already described, to prove its efficacy in that respect. In a case of abortion, a dose of it had the effect of bringing on uterine action, and expelling the secundines three days after the fetus. The medicine was taken when there had been no pain for twelve hours, and was administered for the purpose of stopping hemorrhage, which was occasioned by the retention of the placenta. Half an hour after it was taken, it excited the uterus, and in the course of an hour emptied its contents.

In the second place, though it seems to be an universal uterine irritant, its utility in accelerating labor is not so generally to be depended upon. On the contrary, it wearies and fatigues the patient, unless it be administered under particular circumstances, from an ignorance of which its application will be found injurious. So far as my experience goes, it will be found hurtful if used before the *os uteri* be dilated, though this is not always the case, more especially where the uterus is flaccid and dilatable; but I would never recommend it to be used in such cases (for in these it is not useful,) until the *os uteri* is dilated to the size of at least half a crown. The following case will show the inutility of its early adoption in labor. Before narrating it, I may remark, that in inflammatory constitutions, in persons of plethoric habits, and where the uterus is rigid and only gradually dilatable, I have found that the *secale cornutum* is not so useful as might be anticipated.

Mrs. E. 4th pregnancy, 2 P. M., had been complaining since nine last night; *os uteri* dilated scarcely to the size of a shilling; pains irregular; varying from a quarter to half an hour between. I administered two drachms of the medicine in powder, which in ten minutes quickened and strengthened the pains, but still with no advantage to labor, or effect on the *os uteri*. In two hours I repeated the dose with no better success—nay, with even injurious consequences on the woman's strength, as the pains were all confined to her back and *fundus uteri*, and in the former place they were severe. In this case I tried no dilatation, left the medicine to itself, when, no good effects resulting from its use, I checked its powers by an opiate, four hours after the administration of the last dose. By that time, however, its strength was on the wane. This case too, was attended by irritability of stomach, but not more than is often met with in common cases; where no irritants have been exhibited. Natural labor commenced about ten, she was better in little more than an hour, and had an easy delivery. I have had several cases almost precisely similar, the relation of which would take up too



much of your valuable journal, without throwing any more light on the subject.

In the third place, the effects of the medicine do not terminate always with the labor, but effect the uterus afterwards, more especially, if it has been administered in large doses, as the following case will show:—

Mrs. G. 3d pregnancy, 5 A. M., had been ill all night; *os uteri* dilated about the size of a shilling, thick and soft; pains regular but weak, with intervals of about ten minutes. Two drachms of the medicine in infusion were exhibited at six; in a short time the pains became quick and severe, but with little effect on the *os uteri*, which during each pain I gently dilated with my finger. Disappointed with the small progress of the labor with such strong regular pains, at eight I administered a second dose. The pains came on every three minutes with increased violence, which I assisted with gentle dilation. The woman was safely delivered at ten. My anxiety, however, only, commenced after the expulsion of the placenta, which soon happened; for the pains continued with increased force and regularity till after twelve, and only yielded to large repeated doses of laudanum. The uterus was contracted with the pelvis, firm and hard, each contraction shot convulsively down the legs, depriving them of power with excruciating pain, alarming syncope and vomiting. She felt very weak with irritable stomach for two days. Ultimately she had an excellent recovery.

Enough has been said to show, that the *secale cornutum* is a valuable medicine to the accoucheur in accelerating labor under particular circumstances, and that likewise, when employed too soon or injudiciously, its effects are baneful to the constitution, and prejudicial to the progress of labor. "We are cautioned, however," says Mr. Burns in his work on surgery, "not to use this medicine until the waters have been discharged, and the *os uteri* completely dilated. Under these circumstances, it is expected speedily to increase the pains, and finish delivery; but, if given earlier, we are told the child is destroyed."

According to my experience, the *secale cornutum* is only useful when the *os uteri* is nearly fully dilated. If given when little dilated, even though perfectly relaxed and dilatable, I have found it rather retard than accelerate labor, and very much fatigue women of a weak and nervous constitution; but never have seen any bad effects result, from its use, to the child. When administered to women of strong rigid uterine fibre, even though the *os uteri* be pretty well dilated, its effects have generally been prejudicial to the progress of labor. To conclude, in cases of lingering labor, when the *os uteri* is well dilated, and the pains

weak, or have a tendency to remit, I have found it a most invaluable medicine in quickening pains, and shortening the progress of labor.

By its use I have often freed myself of many an anxious hour of uneasiness and watchfulness, which formerly I was doomed to bear.

Such a medicine is a valuable acquisition in midwifery. Its merits have been too much overlooked, and too seldom tried. If the success of others be equal to mine, it will soon become an inmate in the pocket of every accoucheur.

[We think the above information well deserving of attention. We are aware that many highly respectable practitioners are of the opinion, that the use of the *secale* is replete with danger to the child.—We can readily believe, that if it is given unskilfully, such will often be the case, nor will we say that there is a total exemption from risk in the hands of the most skilful; still we think that this risk is so extremely remote, that it can never be made an objection to the use of the article, where there is danger to the mother in delay.

Besides it will require a discriminating judgment to decide often whether there will be more risk, even to the child, from delay, under unfavorable circumstances, than from the use of the *ergot*.

Certain it is, that this is a powerful and often a vastly important remedy; and we may readily believe, that this, like all other active medicinal agents, will do harm when improperly used, just in proportion to its power of doing good when skilfully applied.

We doubt somewhat the propriety of using the *ergot* as a mere matter of convenience, or to save time; while all is well, we would adopt the old rule, of letting nature alone, generally speaking, but it cannot be said that a woman is always doing as well as she might, when she suffers 9, 12, 15, or more hours of severe suffering, without almost any progress in her labor, other than a preparation of the *parts*, without almost any descent of the child. Such cases are often seen. The proper time of interference must be left to the good sense of the accoucheur.

Whatever may be the difference of opinion on the several points, noticed in respect to the exhibition of the *secale cornutum*, we think no one will doubt the importance of the remedy in the case we are about to relate.

Mrs. T. sent for the present writer in haste, on the 25th of October, 1831. We found her prostrated by a profuse hemorrhage from the uterus, with no pain; nor had there been any thing like active labor. So sudden was the hemorrhage while she was go-

ing about, that she imagined that the uterine waters were discharging. She was a little past the seventh month, as she supposed. Upon an examination, we found the *os uteri* dilated to the size of a dollar, and the presentation natural. And upon putting the question she distinctly stated, that she had no pain, while she was bleeding profusely at intervals. We sent the husband in haste for two portions, of a scruple each, of the *secale*, while we hastened to bring our forceps, at a very short distance.

One dose was given, and, in about fifteen minutes its action could be plainly seen—strong pains came on, and expelled the child in about twenty minutes, with a degree of force we had never before witnessed. The child was dead, but it was quite evident, that it had been dead for several days—it appeared exsanguineous, as well as the *cord*. The abdomen was considerably swelled, and quite flaccid. The mother had injured herself several days before, by carrying a heavy load of bed clothes from an upper story, and had intermediately suffered much distress, from aching pains about the pelvis, back, &c.

So soon as the pains of labor were fully excited, the hemorrhage became quite moderate, and the uterus contracted so well immediately as to leave little or no uneasiness during the few minutes that intervened, between the delivery of the child and the placenta; and, in half an hour after the delivery, the hemorrhage and pain of every kind had so entirely ceased, that we left the patient without fear—we were, however, but a very short distance from the patient.

The patient's system had suffered a severe shock from the *cause*, whatever it may have been, that occasioned the death of the fetus—bilious symptoms supervened, and she was ill a few days; but afterwards did well. We would just remark *en passant*, that we have found scruple doses equal to larger, and this may sometimes be a matter of some importance, where the stomach is irritable.]

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ART. VI. *A letter from SIR ANTHONY CARLISLE, Bart. to the Lord High Chancellor of England, on Cholera Morbus; with notes by CHARLES CALDWELL, M. D.*

[We have been induced to copy the document, above named, in consequence of the high importance which we attach to this subject. It is highly important whether we allude to its wasting influence upon human life, or the shackles and vexatious delays

imposed upon commerce, by quarantine regulations growing out of the belief of contagiousness of cholera. Besides, if the Indian or Russian cholera be not contagious, how degrading to medical science to give countenance to the belief of its contagiousness? We cannot, therefore, be too circumspect in our investigations, in order that we may direct public functionaries, aright who look up to us for information.

We are constrained, on the present occasion, to remark, that we have not seen a more vain, conceited, and unlearned statement on any medical subject for many years, than we have seen in the feeble and unsatisfactory letter of Sir Anthony—and we do not hesitate to say, that professor Caldwell has very ably refuted every thing wearing the least semblance to reason or common sense.

Among the topics which appear in glaring colors opposed to the opinions, or rather gratuitous assertions of Sir Anthony, and in support of one of the most important positions of professor Caldwell, is this—it appears by all the reports which have reached us from Russia, that the government, with the most ample power for carrying such measures into effect, have in vain endeavored to keep the disease from St. Petersburg. In spite of all their regulations and restrictions, the disease, after traversing vast districts of country, seized upon the Capital; and soon convinced those who were at all open to conviction, that it was not to be arrested nor checked in its career, so long as the atmosphere continued contaminated.

What stranger specimen of infatuation and blindness could be presented to us, than that men, pretending to the character of medical philosophers, should still pertinaciously adhere to the belief of contagion, after such a manifest refutation as is afforded by the appearance, and deadly prevalence of cholera at St. Petersburg? Seeing such ample opportunity for preventing it, if it could be warded off by precautionary and prohibitory laws, why has it not been done?]

**MY LORD BROUGHAM.**—It being reported that his Majesty's Ministers have thought fit to take the advice of the College of Physicians, concerning the threatened spreading of cholera morbus, and recollecting some unsatisfactory official medical opinions on former occasions, I have thought it possible that your Lordship's penetrating mind would be better enabled to direct practical measures respecting this important subject, after a review of several statements.

My pretensions to your Lordship's notice are those of a public man possessing extended experience, and whose professional cogitations are founded on a desire to unite scientific precision

to the complicated circumstantial evidences from the common fluctuating theories of the healing art.

I consider the long continued verbose medical disputes about infection, contagion, epidemics, and endemics, to be the unprofitable jargon of schools, unworthy the notice of men of science, and as mystified impediments to students, and as being of no use among sensible practitioners.

Abundant evidence to be found among the conflicting doctrines of medical writers, and the narratives of travellers, show that the very same disease may, under different circumstances, assume the various characters of being contagious in one place or climate, and not so in another; similar differences and vicissitudes also occur in the technical distinctions about infections, epidemics, and endemics. The just and broad view of these apparently opposing evidences is, that they are reconcilable under a rational admission that the communicable diseases in question admit of variable degree of intensity, so as to render them more or less apt to be propagated. Happily for mankind, the morbid materials of these diseases are required to be in a definitive quantity to produce their respective maladies, and the composition of all these morbid poisons seems to be of transient duration. Hence, by continued dilution, or by a gradual abatement of their acrimony, these pestiferous ferments become inert, and eventually their corresponding diseases cease. This appears to be the best reasoning for the establishment of the laws and regulations of quarantine, and experience has sufficiently proved that a rigorous and continued purification of suspected persons and goods is the only means of preventing the progress of cholera morbus. Should, however, this direful visitation afflict our country, it cannot be looked upon as equally fatal with the worst kinds of pestilence; and its prevention, as well as its curative treatment, promise to be more within medical control.

In addition to the strictest cautions of quarantine, it may be well to ascertain the state of human health which render individuals more or less liable to have this disease, and whether any system of dietetic regimen tends to favor or avert its attack, or to render the event more propitious. From personal interviews with many medical and other gentlemen who have undergone this dangerous ordeal, I am convinced that inordinate doses of calomel given on the presumption of disordered liver, and also an equally violent and mischievous practice of bloodletting, have added greatly to the number of deaths. Both these hypotheses appear to be conjectural, and the fatal effects of the practices justify a public prohibition.

The usual violence at the commencement, and the sudden prostration of the vital powers in cholera, seem to depend on two sensible causes—the first, a manifest abstraction of fluid from the volume of circulating blood through the excessive alimentary discharges; the second a notorious change in the qualities of the blood itself, whereby its natural color and texture, which are essential to health, are strikingly deteriorated; and since the ordinary stimulants of ardent spirits and wine have either failed to uphold the sinking frame, or have seemed to be hurtful, the employment of ammonia and opium have been adopted with better success. But a suggestion communicated to me by Dr. Ainslie, the learned and laborious author of a valuable book entitled *Materia Indica*, deserves immediate and serious attention, and as the doctor has sent his proposal to the Russian government some weeks ago, he has a right to precedence in this important matter, if happily his method should prove effectual. The doctor viewing the sudden sinking of strength, and the disordered state of the blood, as the most urgent symptoms, advises the immediate trial of inhaling a super-oxygenated air, for the purpose of revivifying the blood, until other remedies, such as ammonia, shall have time to act upon the morbid materials in the alimentary passages. I am more disposed to place reliance upon the immediate and often repeated doses of ammonia, because of the attending spasms in the limbs, an occurrence which is generally connected with alimentary acidity. So that in addition to the cordial effects of ammonia, it may probably act as an antidote. Craving your Lordship's pardon for this hurried address, and the mode adopted for its publication, I have the honor to be your obedient servant.

ANTHONY CALISLE.

*Langham-place, June, 15.*

REMARKS.—To detect error and guard against its influence, especially if it be of long standing, and supported by high authority, is tantamount, in some cases, to the discovery of truth. It is chiefly on the ground of this belief, that we have deemed it advisable to publish the foregoing letter, and to submit to our readers the following remarks on it.

High as is the professional standing of Sir Anthony Carlisle, and confident as he appears to be in the validity of his opinions, his communication to the Lord High Chancellor of England compels us to believe, that he possesses but a very limited knowledge of the true philosophy of either *cholera morbus*, as that disease now prevails in Asia and Europe, or of any other epidemic complaint. While condemning what he justly denom-

inates the "unprofitable jargon of schools," it is his own misfortune to become entangled in some of the very worst kinds of it. We must not pass, without notice, our author's allusion to the contagious nature of cholera. It is thus expressed.

"Abundant evidence to be found among the conflicting doctrines of medical writers, and the narratives of travellers, show that the very same diseases may, under different circumstances, assume the various characters of being contagious in one place or climate, and not so in another."

This is a mistake. *Circumstantial* contagiousness is a phrase without meaning, adopted as a mere show of sagacity, or as a cover for a want of knowledge, or a crudeness of thought. A disease must be contagious in its nature, else no "circumstance" of "place or climate" or season, can render it so. And if such be its "nature," contagiousness adheres to it, as a part of itself, and cannot be separated from it. To prove contagious, a complaint must be productive of a *secreted poison, specific in its character*, and is, therefore, as radically different from a complaint, in which no poison is secreted, as any one species of plant or animal is from another. Convert a disease, which does not secrete a poison into one that does, and you change its species as completely as you would change the species of a *poisonous* animal or plant; by converting it into one devoid of poison—as completely as you would change the fell rattle snake, by converting it into the harmless black-snake, or the deadly aconite, by transforming it into asparagus. Let the experiment be tried, and the issue correctly noticed. Small pox is converted into gout, intermitting fever, or some other non-contagious complaint. It is small pox no longer, one of whose elements is to be contagious *under all circumstances*, whether of time, place, or season. Again; scrophula is changed into small pox. It is no longer scrophula, one essential quality of which is, that it is *never* contagious. Place, climate, and season, then, may *modify* disease; but they cannot *revolutionize* it. They can render cholera morbus more malignant and fatal, in one instance, and less so, in another. But they cannot render it at one time contagious, and at another not. The advocates of the contagiousness of yellow fever, when driven from one position to another, until their cause became hopeless, took shelter, at last, as their final retreat, behind the assertion, that that disease is contagious *under certain circumstances*. But those circumstances they could not designate. The reason is plain. They had no being. Hence the hypothesis is now universally rejected, by all physicians, whose experience has rendered them competent judges. And the same fate awaits the hypothesis which affirms the *circumstantial contagiousness* of either cholera

morbus or any other disease. A complaint really contagious requires no "circumstances" to render it so; and no "circumstances" can impart contagion to a complaint devoid of it. Every fact connected with its history shows, that cholera, as it now prevails in the Old world, is no more contagious, than it is in the New, when produced by a mess of cherries, currants, or unripe apples. And the issue will prove, that no quarantine arrangements can arrest its progress. Should America escape its ravages, she will owe her safety to the Atlantic ocean, not to any human precautions. Quarantine establishments, when directed against *epidemic* complaints (and such is the present cholera of the east) are founded in error, not to say ignorance, have never proved useful, and never can. The assertion that certain cities have escaped cholera, by prohibiting intercourse with places where it prevailed, is gratuitous. But more on this topic presently.

Equally unwarranted is Sir Anthony's declaration, that the "morbific materials" of cholera and certain other diseases, "are required to be in a *definitive* quantity to produce their respective maladies." On this point nothing is *definitively* known. All that can be said respecting it is conjectural. Small pox is the only febrile complaint, of whose poison we have any *certain knowledge*. And there is reason to believe, that the smallest possible quantity of that poison produces the disease, as certainly as the largest. Innoculation proves this. Insert under the cuticle the fiftieth part of a grain of the virus, and you generate the complaint. Insert a hundred times as much, and you do no more. Of the quantity of poison necessary to produce cholera, we know nothing. To speculate about it therefore is useless, not to say idle. No doubt, much depends, as to its susceptibility of infection, on the condition of the body exposed to the poison.

No less unfortunate is our author in asserting, that "experience has sufficiently proved, that a vigorous and continued purification of suspected persons and goods is the only means for preventing the progress of cholera morbus." No proof to this effect exists. On the contrary, every "means" hitherto employed "for preventing the progress" of that pestilence, which yet "walks in *darkness*" as profound as that which surrounded the pestilence of Egypt, *has failed*. The statements of the most enlightened writers on it, are conclusive on this point. They represent the disease as neither contagious in its nature, nor to be resisted in its march by any barriers that man can erect. The reason is plain. It has possession of the atmosphere, which human means are unable to control. Nothing but the laws of nature, operating on an extensive scale,



can so far change the aerial ocean, in which we live, as either to produce an epidemic disease or stay its progress. The efforts of man to that effect would be as futile and fruitless, as they would be, in an attempt to tranquillize the ocean of water, when lashed by a tempest.

But perhaps Sir Anthony's most striking mistake remains to be mentioned. It is to be found in his opinion of the pathology of Cholera. The following is the hypothesis to which we allude.

"The usual violence at the commencement and the sudden prostration of the vital powers in the cholera, seem to depend on two sensible causes—the first, a manifest abstraction of fluid from the volume of circulating blood through the excessive alimentary discharges; the second, a notorious change in the qualities of the blood itself, whereby its natural color and texture, which are essential to health, are strikingly deteriorated."

This is a very superficial and unscientific view of the subject, to which it relates, and shows our author to be a miserable pathologist. It is gross humoralism, and would have been well received in the seventeenth century, but is obsolete in the nineteenth. "The sudden prostration of the vital powers in cholera" is not owing to either the "abstraction of fluid from the circulating blood" by "excessive alimentary discharges," or to any deterioration "in the qualities of the blood." These are nothing but symptoms of the complaint, and must not therefore be elevated to the rank of primitive causes. The source of the deep prostration experienced in cholera is the deleterious impression made on the nervous and cerebral system, by the atmospheric poison which produces this complaint. In evidence of the truth of this, it is sufficient to state, that the most suddenly and certainly fatal cases of cholera, where prostration and debility are deepest and most distressing, are those, in which the "alimentary discharges" are not very "excessive." In many instances the sick suddenly fall, and expire, in a very short time, (some writers say in "ten minutes") with but limited discharges. Copious alimentary discharges, of a proper character, are favorable symptoms, and contribute to preserve life, not to destroy it. A leading object in the treatment of the disease, is to excite them. Besides, plague and yellow fever prove, at times, as deeply prostrating, as suddenly fatal, as cholera morbus, without any alimentary discharges at all. The reason is the same; the deleterious effect (we might say shock) produced by the poison on the nerves and brain. The deterioration of the "qualities of the blood" is also a subordinate symptom, not a primary cause. It arises immediately from two sources, the weakened action of the heart and the diminished and perverted

function of the lungs. These again result from the injury sustained by the nerves and brain, which superintend the other organs of the body, and are chiefly instrumental in giving them vigor.

It is our author's erroneous view of the pathology of cholera, that has led him to approve of the inhalation of "super-oxygenated air," a remedy proposed by Dr. Ainslie, "for the purpose of revivifying the blood." It is puerile thus to talk of "revivifying the blood," without first revivifying the lungs and heart; and they must derive their revivification from the removal of the morbid condition of the brain and nerves. The lungs form the blood, by their specific function, as the stomach and intestines form the chyle, by the means of theirs. As soon, therefore, shall the human body be nourished and strengthened, by filling a paralyzed stomach with food, as the blood be improved, by filling the lungs with "super-oxygenated air," when they are so far deranged as to be incapable of acting on it. A belief the contrary of this is the result of what is denominated "chemical physiology," one of the emptiest hypotheses, that has ever made its way into medical science. Let the lungs and heart be reinvigorated, by a restoration of the cerebral system to soundness, and the common atmospherical air is all that is required to revivify the blood. Without such reinvigoration, no air that can be employed, produces any salutary effect on it. Dr. Ainslie's remedy, therefore, will prove nugatory. Of Sir Anthony's desire to prohibit, by public authority, any mode of practice, instituted and pursued by enlightened physicians, we shall only say, that it exhibits more of a domineering temper, than of correct reason or sound judgment. We should see, with much regret, a public interdiction even of his inhalation of super-oxygenated air. Yet nothing could be less beneficial than such a measure. If it did not actually kill the sick it would suffer them to die, for want of suitable aid. Still, professional exertions ought to be free.

Is any one inclined to inquire what our own views are of the nature of cholera morbus, now raging in Europe and Asia, the means of checking its progress, and the best mode of treating it? They have been already in part communicated. A few further remarks will complete the developement of them.

We believe the complaint to be, not contagious, but a true epidemic, subject to the laws which govern other diseases of the same class.

Like all other epidemics, it travels much more rapidly than any complaint simply contagious can do, its march being sometimes from fifteen to eighteen miles a day. Within the last

fourteen years, it has overrun a greater extent of the surface of the globe, than the smallpox has ever done in a century.

It banishes from the place where it prevails all other general diseases, or assimilates them to itself. Neither typhus fever, bilious fever, nor even pestis vera can exist, in their common forms, within its limits. The reason is obvious. It has possession of the atmosphere, and is therefore supreme. This is another law of genuine epidemics.

As relates to its existence, it is independent, or nearly so, of the influence of place, climate, and season. It prevails alike in high-lands and low, following, however, occasionally the courses of rivers, and other bodies of water, but, by no means adhering to them constantly. The torrid and the temperate zones have experienced its devastations, with about equal severity. No change in the *sensible* qualities of the atmosphere seem capable of entirely stopping its course. In temperate and high latitudes the cold of winter weakens it, and retards its march, but does not extinguish it. This shows it to be more exclusively an atmospherical disease, and less dependent on the influence of season, than either plague or yellow fever usually is. Its spread is irregular. It does not march from country to country, with an even front, or in an unbroken line. It often leaps from one place to another, passing over a wide interjacent region, without touching it, and afterwards invades it in several remote points at once. Nor does it spread, where it is prevailing, from the sick to the well. Persons in close and constant attendance on the diseased, are no more liable to it, than those who keep aloof. Nor, when the complaint is contracted in a deleterious atmosphere, and the patient is removed to a healthy one, does it spread among those around him. These are undeniable marks of a disease propagated, not by contagion, but by an insalubrious atmosphere. In other words, they betoken a true epidemic.\*

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\*We know that contagionists attempt, with some adroitness, to maintain their hypothesis, by alleging that epidemic diseases, when spreading over countries, appear first in armies, populous cities and other places of general resort, where human beings are crowded together in large masses. This they attribute to the constant and extensive intercourse kept up between these assembled multitudes and the places where disease prevails.

The fact alleged is admitted, but the inference is not. It is true that epidemic complaints do generally appear first in armies, cities, and other crowded situations. But this is not attributable to the consideration assigned by the contagionists. It is because the inhabitants of large cities are, from the peculiarity of their constitutions, more susceptible of disease, and soldiers, from the exposures and hardships they sustain, more liable to it, than those who live scattering in country places.

It is known that the constitutions of the inhabitants of cities are more

As respects the means of arresting the progress of this scourge of our race, I believe there are none under human control. Man can neither produce it, destroy it, nor set limits on it. Nature alone, in her own way of working, which we understand not, is competent to the task. Quarantine establishments are impotent in relation to it. Erect them in every seaport and other mart of every portion of the globe, and they will be of no avail. Interdict commerce, and every other kind of social intercourse, in the countries which cholera has invaded, and still the disease will continue to spread, until nature shall stay it, by her own interference. And that interference will consist in restoring soundness to a vitiated atmosphere. On the protection of quarantine regulations, in our own country, we place no more reliance, than we would, were they designed to secure us from the visitations of northeast storms. They will embarrass commerce, expend money, and be useless to health. As relates to the usual intention of them, and their administration, they are founded on a superstition as palpable, and almost as disgraceful, as that which induces many of our fellow beings to nail horse-shoes over their doors, as a charm against witch-craft. Not a single well authenticated fact can be adduced to show, that the poison of cholera can attach itself to either articles of apparel, or merchandise, or to the human body, whether in health or disease, be conveyed from one region to another, and

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delicate and sensitive, and less vigorous than those of the robust inhabitants of the country. They are therefore less able to resist any deleterious agent that may exist in the atmosphere. The same amount of malign influence which subdues and sickens them, is insufficient to produce a similar effect on their hardier and less susceptible country neighbors. Hence, on the occurrence of an epidemic condition of the atmosphere, the constitutions of the former yield to the evil first, while those of the latter resist more obstinately, and somewhat longer. They sometimes resist until the epidemic influence terminates, and their possessors enjoy an exemption from sickness. And the hardships and privations of soldiers, acting as exciting causes, render them as liable to epidemic diseases, as the inhabitants of cities; in many cases more so.

The fact, that epidemics spread most rapidly, at times, along the low grounds of rivers, and through flat sickly tracts of country, is explicable on similar principles. Owing to their breathing a less salubrious atmosphere, the inhabitants of such places have less vigorous constitutions, and are therefore less able to resist an epidemic influence, than the inhabitants of more elevated and healthy situations.

The present cholera morbus of Europe and Asia, spreads most rapidly, and exhibits the highest degree of malignity, during the summer and autumnal months. The cause of this seems obvious. The heats of the period referred to, united to the malaria resulting from the dissolution of dead organic matter, weaken the human constitution, and prevent it from resisting the epidemic influence.

thus propagate the complaint. On this point contagionists might be safely defied.

Having never seen a case of Oriental cholera morbus, our remarks on the treatment of the complaint must be brief and general. It is obviously an abdominal disease, marked with deep congestion of the abdominal viscera. The leading curative indications, therefore, would seem to be three; to allay irritation, promote free and healthy abdominal secretion, and determine to the skin by revulsive agents.

The chief means of executing these indications are simple and obvious. They consist in blood-letting, when the condition of the system calls for it, calomel and opium, judiciously administered, mild diluting drinks, and the warm bath, aided, as they may be required, by rubefacients and fomentations, and other remedies, calculated to elicit centrifugal action. In Sir Anthony Caslisle's ammonia we repose no confidence. Should the disease invade France, with the violence and malignity it has elsewhere exhibited, it may be safely predicted, that it will subvert, for the time, the feeble practice of Broussais and his followers. It will convince them that a giant-foe must be combatted with giant-arms.

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ART. VII. *Case of retention, in which the operation of laying open the Urethra succeeded in affecting a permanent cure.* By HORATIO G. JAMESON, M. D.

I was consulted by George Frisby, on the 10th of April, 1825, on account of retention which had existed twenty-four hours. He had long been badly strictured, and generally in a state of great suffering. Last summer I succeeded, after long perseverance, in dilating the urethra, which I found much indurated and thickened. After passing my largest sound, he was so much better that he neglected coming to my office; and the disease has been growing worse during the winter. He has lately been trying to use a sound himself, and has probably made a false passage, for I cannot, after the most careful trials, pass any instrument beyond the bulb. The instrument after arriving here seems to carry the urethra before it. Advised laudanum, warm bath, and salts to open the bowels.

Eleventh, in the morning, finding the patient no better, and no likelihood of passing the catheter, and believing there was dan-

ger in delay, I, with the advice of doctor M. Diffenderffer, performed my usual operation.—The patient being tied, I passed a large sound down to the bulb, and then laid open the urethra. Owing to a violent and unexpected jerk of the patient, I did not succeed in making the incision as free as I wished—the point of the sound was now made to push out the perineum, and having opened the urethra by an incision into it, I endeavored, as usual, to pass a small straight director into the urethra. Having succeeded in this, I passed in a very small short bladed scalpel, along the groove. I could now force my finger into the bladder, but instead of finding a considerable quantity of water, I found the bladder empty. I now learnt that he had passed his water about two hours before, by violent straining, in a dribbling manner.

The operation thus far completed, I passed a large flexible tube fairly into the bladder; and tying this to the penis I left him. Two hours after the operation he had lost but very little blood, and a few drops of urine had passed through the tube. He still complained of severe pain in the bladder; although he had taken a tea spoonful of laudanum at the time of the operation, and repeated it soon afterwards.—8 o'clock in the evening, he has taken three tea spoonfuls of laudanum, but has still violent pain, and constant desire to pass water. Advised dose of salts, and repetition of the laudanum, if necessary, and give an enema.

On the morning of the 12th, I learned that he had had severe pain for sometime after I left him, although he took three tea spoonfuls more of laudanum. He then passed a tolerable quantity of water through the tube. The tube seemed wet through the night, and occasionally dropped a little. Supposing it to be stopped, and not having a stylet at hand, I injected about a gill of warm water into the bladder, it was rejected violently, and followed by a little bloody water. In the evening I passed a stylet, and a small quantity of urine passed away, with a little blood. He has neglected to take the salts, or the injection, which were directed this morning. His bowels not being open, I directed the salts to be taken immediately.

13th. Patient rested very well last night, salts operated freely—no pain or soreness in the belly—rinsed the bladder by means of warm water passed through the tube, and drawing it out again. Some of his urine passes through the tube, but much of it comes through the wound. In the evening, he says, he feels well, no tension or soreness of the abdomen. Took salts, which operated well—tongue foul, pulse 110—urine only drops from the tube.

Advised a total abstinence from solids—there is reason for suspecting that he has transgressed in that particular.

14th. Patient reports that he rested well last night, and is free from pain this morning; but he seems to be a little flighty, skin hot, tongue extremely foul—belly sore, and he tosses a good deal—pulse 115, no thirst nor sickness at stomach. Bled him twelve ounces. In the evening, he says he rested pretty well during the day—but his skin is still hot, tongue foul, eyes look ill—no thirst, no appetite.—Soreness continues in the belly—bowels pretty freely open. Bled to  $\text{℥xvii}$ . Passes his urine freely through the wound, it comes from the tube by drops.

15th. Rested tolerably during the night—looks more natural, pulse much softer, and not more than 100. Belly less tense, and less painful on pressure—tongue extremely foul. Passes his urine very well through the wound. Has had, since yesterday evening, five alvine evacuations. Directed *submur. hydr. gr. xvii* divid. in chart. no. iv. one every third hour. In the evening the pulse somewhat fuller, about 95; rather more composed in his appearance, belly softer. Says he has no pain, but seems to moan and toss a great deal.

16th. Has had but a bad night, his belly is less tense, and less sore to the touch. Pulse about 100, tongue not quite so foul, countenance better. Advised bathing the abdomen with hot whiskey, and an enema of salts and warm water. In the evening the pulse 110, tongue rather cleaner. Says he has no pain except in his thigh—can bear pressure on the abdomen without much pain. Urine passes freely through the wound. The wound looks dark and sloughy this morning. Directed to repeat the measures employed this morning.

17th. Abdomen much softer and less sore to the touch—passes water by the tube, and through the wound; tongue much cleaner, pulse 105, desires to eat. Advised an enema of salts and water, and bathing with the warm whiskey; allowed a little custard, and porter sangaree. Evening, the pulse about the same, skin hot, no soreness of the belly on pressure. The injection operated once on his bowels. Eat a little custard and drank freely of the sangaree. Still a little wandering of the mind at times.

18th. Looks better, and rested better last night—lower part of the belly feels hard, but is not sore to the touch. The wound looks bad, pulse 95; craves food, allowed fresh soup. Passes urine freely through the wound, and some through the tube. Stomach not sick, but there is an ugly sort of gulping. In the evening skin very hot. Directed an enema.

19th. Pulse 90, less soreness, craves food, belly not sore except on hard pressure low down. Wound still looks foul—water passes chiefly through the wound. Withdrew the tube, which

had become quite rough from the action of the urine upon it. Introduced a silver tube of very large size, well gilt.

20th. Seems to be doing well, but has still some fever—tongue cleaner. Some appetite, the tube came a little out during the night—replaced it. The urethra seems to be perfectly free.

21st. Fever is subsiding; the wound is assuming a healthy aspect—no pain or soreness of the abdomen. Tube came out in the night, and I could not return it, although the passage seems to be free as far as the neck of the bladder, beyond which the sound will not pass. Passed in a flexible tube as far as the neck of the bladder, and left it there.

22d. Doing well, succeeded in passing in a large flexible tube.

23d. Still doing well, the tube stays in; but he will not lie on his back, and thus prevents the urine from passing off freely, and thereby prevents the healing of the wound.

25th. Although the patient seems to be doing well, he has still a slight fever, owing, no doubt, to imprudence. Urine flows freely through the tube, and not through the wound.—Advised a dose of salts.

26th. Still slightly feverish, tongue foul, complains of pain in his right hip, and says it moves up to his breast at times. Appetite good, wound looks well, but, owing to his lying with his legs wide apart, it is kept open. The urine runs freely through the tube.

27th. Some fever remains, but he seems to be improving—tongue a little foul, wound clean but open, which is owing to his lying with his legs apart.

28th. Says he feels better, but there has been a copious discharge of fetid pus to day from the wound, and last night he passed some urine through the wound. Skin hot, pulse very frequent.

29th. Was restless last night, but seems free from fever this morning, and he feels, he says, every way better—tube discharges well—wound looks well and is healing.

30th. Found the patient ill; has considerable fever, and is much prostrated; tongue foul; little appetite. In short he is now seriously ill of bilious fever. Directed one grain of quinine every two hours.

May 1st. Complains of violent pains in his right hip and shoulder; pulse 85; tongue foul; water passes freely through the tube; wound healing slowly. Has taken but little of the quinine under the notion that it lessens his appetite. Advised grain of quinine, with 10 drops of laudanum every hour, omitting the laudanum so soon as the pain abates.

2d. Pulse more steady; tongue cleaner. Scarf skin peeling off over a large portion of the body. Says some urine came



through the wound last night. Took out the tube, and being cleaned it was returned. Continue half a grain of the quinine every two hours, with sulph. acid.

3d. Slightly better; tongue cleaner, but yet foul; bowels confined—advised dose of salts, and an enema if necessary; continue the quinine, &c. The wound is healing.

4th. Rather better, though still feeble—continues the quinine.

6th. Doing pretty well, but has been weakened by a dose of castor oil, which acted copiously, and was taken without advice.

7th. Seems languid—took out the tube—he says the water passed through the wound. Advised tea spoonful of bark, and a table spoonful of whiskey, and a little water, to be taken three times a day.

8th. Improving in health, but says all the urine comes through the wound. I passed a large sound and found the urethra in part obstructed, which seemed to be occasioned by an agglutination. This overcome, the sound slipped into the bladder, by its own weight, the patient being on his back.

9th. Improving slowly—water still passes through the wound—great discharge of pus; wound looks languid.

12th. No change worthy of notice since the last account; continue simple cleansing of the parts, without applying any bandage or application, except a little whiskey and water, after washing with mild soup and water, frequently.

13th. Nothing new, except that a portion of the urine comes through the wound—passed a large sound.

16th. Passed most of his urine through the urethra, but the wound is still slightly open, and a little urine comes through it. He complains of great prostration, and says he thinks there is no improvement in his condition. Directed the bark in substance.

18th. Doing well as regards his health, but a considerable quantity of the urine comes through the wound.

20th. Part of the urine still passes through the wound. Introduced a flexible tube.

26th. A portion of the urine still comes through the wound, otherwise he is doing well.

30th. The patient is gaining strength, but the wound is not quite healed—took out the tube.

Here our notes of this case end; but, we had the satisfaction of seeing this patient perfectly restored to health, and with a total exemption from the deplorable stricture, which had annoyed him for years, often laying him up for several days.

It appears, by reference to dates, that the operation was performed on the 10th of April, and the wound was slightly open on the 30th of May, a period of forty days. This delay was ow-

ing to the circumstance, which we have stated, that the tube would not carry off the urine. This is an occurrence, which we have now and then met with, in our attempts to heal wounds in the perineum and urethra, by the first intention. Our patients lost much time, and had their sufferings much increased, and, therefore, we have been anxious, at all times, to find out the cause of the ineffectual employment of the tube; but in this, and a few other cases, we could neither do this, nor overcome the difficulty. This remark applies to our lithotomy patients, as well as those who have been operated on for stricture.

It will be seen that the patient in this case suffered much, but it is certain that his life was saved by the operation, and we can felicitate ourselves with the belief, that by this we did every thing for the patient that could have been done, by any operation intended for emptying the bladder; and at the same time we effected a cure of the stricture, hence the preference of this method over all others for emptying the bladder, in cases of retention, which can only be relieved by surgical operation, as by puncture through the perineum, or rectum, as has often been practised.

The reader will perceive, that this man suffered from his own misconduct. He was restless under the operation, although death was staring him in the face, from the retention; afterwards he was irregular in his diet, and in the use of such remedies as were directed for him, from time to time.

Our friends doctors Diffenderffer and Annan, assisted us with their counsel, and in the operation; and the former continued his attendance throughout the difficulties of the case.

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**ART. VIII.** *Case of very severe wound of the ankle joint successfully treated, by HORATIO G. JAMESON, M. D.*

IN May last, I visited with doctor Mackenzie, a mulatto man belonging to Mr. Job Smith of this city, who had met with the following accident. His horse running off with the gig, he jumped out, and was found lying across the road, as if the wheel must have passed over him. He was found deranged, though a steady man, and could give no satisfactory account of himself. There was a wound through the integuments, about an inch and a half above the inner malleolus, about half round the leg; the lower portion of skin had been forced down behind the end of the tibia, which was denuded about two inches, and its inner

edge quite rough, being stripped of its periosteum. There had been no great hemorrhage. The aspect of the wound was frightful—all the connexions of the inner side of the joint were broken up. The finger could be passed in only to the edge of the joint, but by means of the finger passed in under the flaps of skin which was turned down, I pretty readily succeeded in lifting the edge of the skin over the bone. The bone being covered, I put in three sutures. I believe the tire of the wheel passed over the leg, cut the skin, and pushed and tucked it down under the end of the tibia. The rough line of the tibia, I believe, was by the rubbing of the wheel against the bone, as it rose over it. The wheel passing obliquely, first cut the skin, then pushed it down below the end of the bone, while the edge of the tire was sliding obliquely over the leg, and pressing the parts below the end of the bone.

Sunday, May 15th. Patient was delirious all night, but recovered his mind this morning. Had spasm last night, and laboring pulse. Doctor Mackenzie bled him, and gave, in all, about 150 drops of laudanum. This morning pulse somewhat tense, not much swelling, apply poultice; salts; and, opium freely given in the evening.

Monday, May 16th. Had so much fever and pain of the head as to induce doctor Mackenzie to bleed twice, but he became faint both times on losing a moderate quantity of blood; omitted the opium on account of the fever; leg considerably swelled. Leech the leg, bleed if requisite in the evening.—Salts operated slightly yesterday—repeat it this morning—continue poultice, and opium.

Tuesday, May 17th. Salts operated pretty well yesterday, and about twenty-five leeches were applied to his leg. His fever was very moderate yesterday. He took seventy drops of laudanum last night, and rested pretty well—not much pain this morning. Swelling considerably abated. Pulse a little frequent and irregular, but not tense—some griping. Cool poultices, laudanum this morning and evening.

Wednesday, May 18th. Fifty drops of laudanum were given yesterday morning, which relieved his griping, and he passed a good day; having but little fever. The salts which he was taken with antimony were discontinued, and a dose of oil given at his own desire—it operated, and he slept well all night. No fever this morning—leg less swelled. Wash clean, and renew poultice—salts and antimony to be given.

Thursday, May 19th. Was pretty comfortable yesterday, had very little fever or pain—wound is suppurating freely—swelling much as yesterday—increase of redness. The foot felt hot yesterday, and was much relieved by applying cold whiskey and

water. Bowels not open.—Take a dose of castor oil and continue poultice.

Friday, May 20th. Had some fever yesterday evening, but nothing was done, except a dose of oil which was given. Rested pretty well—leg not much swelled—less colored, and but little heat. Continue poultice—suppuration, continues to increase slightly.

Saturday, May 21st. Sore suppurates kindly—has little or no fever; redness and swelling still diminishing—bowels a little costive. Directed a dose of oil, and continuance of poultice—strict low diet.

Monday, May 23d. Patient was pretty well yesterday, but rested badly last night, and had much pain in his ankle and leg. This morning there are some vesicles, and at the lower part of the contusion, a pretty large spot livid—the appearances strongly indicating gangrene. Directed carrot and yeast poultice.

Thursday, May 24th. Sore looks better, lividity has somewhat abated—wound suppurates kindly, less swelling, no pain nor fever—rested well last night. Continue poultice of carrot, &c.

Wednesday, May 25th. Was pretty quiet yesterday—last night he was extremely restless and complained of severe pain in the wound, ascribed the pain to the cold poultice, as it each time increases the pain, and makes him chilly—pulse frequent—wound as yesterday, except the discharge a little thinner—dress with sp. turpen. and sweet oil—give a dose of oil, opium more freely.

Monday, May 30th. Was pretty well through the day after I saw him.—He exposed himself to a draft of air by opening a window over his bed—in the evening he had a violent fever. Doctor Mackenzie bled him about twenty ounces, and gave a dose of laudanum—directed oil and emollient poultices, opium.

Tuesday, May 31st. Was pretty well yesterday, and on Saturday, but yesterday evening he had a violent pain in his stomach, which became so severe as to cause him to faint—leg swelled a good deal about the wound—discharge looks well—the skin is rather of a livid color—pulse small and frequent—have fears of tetanus. Continue emollient poultice—give opium freely, and improve his diet,—a little magnesia.

Wednesday, June 2d. Nothing remarkable since last report—the leg and foot continue swelled considerably, but he does without laudanum, to which there is an objection owing to its increasing headach. Some improvement in his diet, seems to have done him much good.

Thursday, June 5th. No alteration of any consequence—discharges pretty freely, but only at the lacerated edges—poultice continued.

We now left the case to doctor Mackenzie, under whose care he recovered very rapidly. No unpleasant symptoms occurred

after we discontinued our attendance, but the limb remained weak and disposed to swell for some months afterwards. We have several times, within the last week or two, that is in November, seen this man engaged in driving his lumber wagon, which he drives about the streets daily, delivering boards and other lumber in different parts of the city. In doing this he stands up in the fore part of the wagon, which passes all day long over rough stone pavements. The jarring under his feet, in standing thus, is such as a man unaccustomed to it, could not easily endure, so that we have reason to believe, that the limb has suffered but little impairment, by the terrible injury, received less than six months ago.

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ART. IX. *Case of imperfect anus successfully treated.*

THIS malformation was in a child several months of age. There was a faint appearance of an opening in the proper situation of the anus, but the feces passed obliquely upwards, and made their appearance near the scrotum. When hardened portions of feces come down, they pass down so as to press upon this blind opening, and lodge there under the skin. By passing down a probe, they can be dislodged, and brought out at the erratic opening.

The following operation was performed—a director was entered into the opening, and carried down towards the coccyx under the skin, then running a sharp pointed bistoury down the groove of the director, a little posterior to the blind opening, the point was there forced through. The operator was thus enabled to cut the whole by one stroke of the knife. A little protuberance was now seen, just within the incision, and at the termination of the rectum, having a tucked up edge—this required a pretty free stroke of the knife, by which all was set free. Advised that no dressing be applied, but the part to be kept perfectly clean.

The next day—the parts look promising, no adhesions having taken place—a finger was introduced with all possible gentleness yesterday evening, and repeated this morning. The lower part of the wound assumes a roundish form.

Four days after the operation.—The child is still doing well, but there is a slight disposition in the part to heal: the finger was again introduced.

Under this simple remedy, this patient did well, and has grown to be a fine promising boy of six years of age.

**ART. X. Case of Hydrocele, attended with some peculiarities, recorded in June, 1825.**

Mr. R. C. has hydrocele of several months standing, with some enlargement and induration of the testicle, which was not discovered till after tapping. He had used powerful cathartic and other means without any apparent benefit. *Contrary to what we had ever seen before, the testicle lay in the anterior part of the scrotum, and the trocar passed behind it.* There was about half a pint of fluid. The solution of sulphate of zinc was used of common strength. He would not acknowledge that it gave him any uneasiness, except a little uneasiness in the abdomen. I, therefore, kept the injection in 10 minutes, at which time I plainly saw that it gave him much pain, though he endeavored to conceal it.

6th. He has not had much pain, but the scrotum is much swollen—advised rest.

This patient soon recovered and was perfectly relieved from the hydrocele, but the affection of the testicle increased, and in a few months was found to be a case of sarcocele, attended with considerable pain. In the succeeding year it became necessary to operate for this affection, but we are not able at this time to lay our hands on our notes, and shall therefore briefly relate some of the more important particulars, which we do the more readily from the operation having been completely successful.

The testicle was enlarged to the size of a goose egg, very hard, painful, and was gradually increasing in its volume.—Upon laying bare the spermatic cord, by an incision extending from the lower abdominal ring downwards in the course of the cord, about two inches, we discovered the spermatic artery greatly enlarged; so much that it was found and tied with unusual facility. The cord having been raised on the end of the finger, we passed an animal ligature below the artery, by means of a common suture needle—the artery being tied, the external wound was brought together by means of adhesive plaster, and the patient put to bed.

The swelling diminished rapidly, and in a few months, we had the pleasure of seeing our patient perfectly well, but he was not confined more than two or three weeks.

Mr. Chalmers has continued in good health, and has continued industriously to follow his business of bricklaying up to the present time, that is during a period of five years. Doctor Annan was present at this operation, and, we believe, doctor Bain also.—The artery was larger in this case, than we have seen,

and the subsidence of the swelling and consequently the restoration of the patient, more speedy than any case we have operated on.

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**ART. XI. *Case of Chronic inflammation and ulceration of the hand successfully treated.***

Samuel Hunter, from the country, has disease of the hand of two years' standing—it commenced suddenly in the night like the bite of some insect. The hand swelled in the back, suppurated, and soon became indurated, swollen, hard, and distorted. After some time, another suppuration formed over the metacarpal bone of the index finger—this is now nearly healed, and the first suppuration, in like manner healed as the other came on. As the last healed, another came on more extensive than it, and is situated on the metacarpal bone of the next finger to the little finger. There is but little discharge, and that is thin and ill conditioned; the wound looks fungus like. At this time, there is also a swelling over the carpal bones, which is very hard around its edge, but an obscure sensation of fluctuation may be perceived. No bone has come away, nor can the probe be made to touch any. The fingers are all swelled and have nearly lost all power. The whole hand is considerably pained, and feels hot. I observe that the radial artery beats violently, and seems to be unusually large; but this was only ascertained immediately after immersing the hand about twenty minutes in warm lime water. This sore has much the aspect of a scrofulous one, but the patient, who is about 60 years of age, is otherwise healthy; and has not been affected with scrofula. His habits, we think, are not sufficiently temperate.

March, 20th, 1825. I purpose trying the effects of lime water, as warm as it can be borne, once a day; and apply as much pressure as can be borne, with a view of promoting absorption, as recommended by Mr. Young. If this should not succeed, I purpose tying the ulnar artery.

21st. Dressed the hand as yesterday—he says it was painful during the day, and that he had some fever; hand very hot.—Directed dose of cathartic pills. Omitted to mention yesterday that this case has been considered cancerous, by several persons who have seen it, mostly pretenders; and he has suffered prejudicially from the application of caustic from time to time.

22d. He thinks his hand is less painful, the sores look cleaner—large stringy pieces of cellular membrane came away this morning. Dressed as yesterday, and gave sulph. magn.  $\frac{3}{4}$  iij, crem. tart.  $\frac{3}{4}$ j; to be put into a pint of water, and a wine glass full taken every morning and evening.

23d. The hand is somewhat improved—he thinks he can move his fingers better, and the sores certainly look better.—Dressed as yesterday.

24th. Dressed the hand as usual.

25th. The hand looks better, but the fingers are swelled a little, owing, probably, to the pressure of the adhesive strips which have been applied for some days, with a view of applying pressure. Used the lime water, and omitted the adhesive strips.

27th. The hand is doing well—applied the lime water bath.

28th. Much as yesterday—lime water bath, and the adhesive strips lightly applied.

29th and 30th. Dressed as usual with lime water and adhesive strips.

31st. The hand a little more swelled, owing, probably, to too tight bandaging.—Dressed with lime water, and the strips laid loosely over the sores.

April 1st. Nothing new. The adhesive strips seem to give him pain.

2d. There has been a good deal of pain in the hand; swelling lessened, but has had considerable fever; and the sores do not look so well. Dressed as usual.

4th. Nothing remarkable.—Sores do not improve in appearance, but the swelling subsides gradually. Spread a little calomel on the sores.

7th. Dressed with the lime water; having omitted it two mornings, the hand became much more painful, swelled, and hot.

8th. The hand feels better, and is less swelled.—Dressed with lime water, and lint.

9th. Much as yesterday—dressed the same.

10th. The sores seem to improve, though the ulcer on the back of the wrist has extended somewhat, but the other sores look better, and there is less pain and heat in the hand.

11th. The hand is improving—dressed as usual.

12th. As usual, lime water—and dressed the sores with an ointment, with a portion of white lead and a very little tinct. opii. added.

14th. As day before yesterday—same dressings.

15th. The hand is slightly irritated, he thinks by the lead ointment. Dressed as yesterday.

16th. There is more swelling and redness of the hand, and it is somewhat painful—probably the opium, combined with the



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ointment, is too stimulant.—I have thought proper, notwithstanding, to try it one day more.

17th. No remarkable change since yesterday. Dressed with the lime water and the same ointment.

18th. Dressed as usual.

19th. There is a slight improvement since yesterday.

21st. Nothing remarkable—dressed as usual.

25th. There has been no material change in the sores, nor has the treatment been changed till to-day. Dressed to-day with lime water, and touched the sores freely with lunar caustic.

30th. Dressed with lime water, and lunar caustic.

May 2d. The sores continue much the same. Dressed with lime water and caustic.

3d. Applied caustic and lime water.

6th. The lime water and caustic have been applied daily.

7th. Not much improved in appearance, but it is less painful.

Same dressings.

18th. Some improvement in the sores, much less painful; the same dressings have been continued daily.

21st. Considerable improvement—no change in the treatment.

June 21st. The sores seem to improve regularly, but slowly.

No change of dressings, which have been made daily.

28th. Improving considerably. Continue the same dressings, and in addition we covered the ulcers with lapis tutiæ, in fine powder.

July 4th. Sores on the fingers do not seem to improve much; after dressing the sores with lime water and caustic, covered the whole with simple ointment.

18th. Dressings have been the same, and daily—very little improvement.

22d. Hand improving moderately—covered the sores with an ointment, made by adding a small portion of sulph. zinc. to the simple ointment.

August 3d. There has been no remarkable change, the sores look rather more healthy—changed the lime water, which has been used daily for a decoction of bark.

5th. The ulcer on the metacarpal bone of the fore finger looks ill—the caustic seems to harden the edges of the sores too much. Touched the edges slightly with the vegetable caustic, after washing in lime water, dress with sticking plaster around the hand and fingers.

6th. The caustic of yesterday has improved the appearance of the edges, but has not wholly destroyed the bony edges: covered the sores with bark.

11th. Dressed with decoction of bark, washed the sores with

fowler's solution, and afterwards with fresh expressed juice of garlic.

24th. The garlic juice has been used daily—sore slightly improved, but being rather stationary, applied the caustic again.

27th. The whole hand somewhat inflamed; and vesications around the ulcers. Resumed the lime water, and simple ointment.

29th. Dressed daily with lime water, and garlic.

Sept. 5th. Continue the lime water; and use caustic and lime water alternately.

13th. The sores have been dressed daily since last report with the lime water, and the alternate use of the lunar caustic, and juice of garlic, mostly the former.

15th. The caustic having been repeated often, soon destroyed the granulations so as slightly to retard the healing of the sores.—Dressed with lime water and garlic.

23d. The parts have been dressed daily with lime water, and mostly with the garlic, now and then with a very little caustic.—One small ulcer remains open.

24th. The caustic of yesterday acted a little too freely, and took a little of the skin off—dressed to day with garlic.

October, 4th. The hand is entirely healed. Dressed with dry lint.

10th. Patient entirely well—rubbed the skin with fine sweet oil, which continue for some time.

This is one of the most interesting cases that we have met with—the whole back of the hand and several of the fingers, in the phalanges next the hand, were in a state of honey-comb-like fungus, and the tendons exposed in several places. Notwithstanding this deplorable state of things, the motion of the wrist and of the fingers was preserved. One important circumstance attending the case is this, it serves to show how much may be done, in ill-conditioned chronic ulcerations, by the surgeon's attending to the dressings, instead of merely directing them to be made. In this case, we witnessed the application of the lime water, or washing and cleaning of the sore every day, and then applied the caustic or other dressings with our own hands.—Without this precaution, we are confident, this man's hand would never have healed. He came to us for the purpose of having it amputated, after suffering two years, as we have already stated.

We should have stated in our notes, that the warm lime water, spoken of, was prepared every morning, at the time of dressing, by slacking a little lime in a wash basin of water; and, while yet warm, and without waiting for the lime to subside more than a few minutes, we immersed the whole hand in it.

**ART. XII. Operation of Tracheotomy, successfully performed for the removal of a water melon seed from the trachea of a child.**

October 13th. Mrs. Guiton, from Harford county in this State, brought her son to town, aged about six years, who, about two weeks since, got a water melon seed into his trachea. He was eating a piece of water melon hastily, and choked suddenly, after which he had a croupy cough. He coughs frequently, but his respiration is not much affected in ordinary. But by a close examination one hears a tremulous sound at the root of the neck; a sort of hissing, and gurgling sound is also heard in the chest. He is feverish, but his appetite is not materially impaired. These symptoms, together with the extreme violence of the cough, induce me to believe that the seed is in the trachea.

14th. An emetic has been given which operated freely, and relieved him of much phlegm, but has greatly aggravated the cough. He goes about, but is subject to violent attacks of cough, attended with pain in the chest—no abatement of the wheezing.

Operated in the usual way—found the trachea very deep, and was much incommoded by the bleeding from the incisions. The depth of the wound, and the smallness of the trachea, rendered it difficult to find the crico-thyroid membrane. A free incision was made in the trachea, and the edges of the wound left open, while he coughed violently, but nothing came up. Some blood, and a little mucus, were driven out with great force. The child swallowed three or four mouthfuls of blood; and said the seed was out. He ceased to cough, and the rattling and wheezing ceased. I am, therefore, decidedly of the opinion, that the seed was thrown into the mouth, and swallowed, when the trachea was first irritated. Advised a dose of castor oil.

15th. The child slept pretty well, and coughs but little this morning—cannot perceive any wheezing, or rattling, coughs a good deal—no fever. The oil operated well but no seed could be found in the feces, for which the nurse was directed to search.

16th. Slept well last night, and has a good appetite this morning—no fever—mucus accumulates a good deal in his throat; and, owing to his neglecting to spit up, his cough is aggravated. Took some oil.

17th. Child rested well—eat a hearty breakfast, seems obviously better.

18th. Seems to be doing well, but had a severe spell of coughing last night—no fever or cough this morning. The wound has healed by the first intention.

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29th. Child is doing well, breathes perfectly well—had a severe spell of coughing last night.

From this time no unpleasant symptom occurred, and in a few days this patient went home restored to perfect health.

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**ART. XIII.** *Case of chronic inflammation of the mucous membrane of the throat.*

Mr. Marshall consulted us in October, 1825, on account of an affection of the throat, of six months' standing. There is soreness of the fauces and throat, with redness and irritation of the part, for six months past. We had seen several similar cases previously, mostly females, which induced us to consider it somewhat epidemic in its character. Doctor S. B. Martin has been treating it with various gargles, both saline and astringent; also alterative doses of calomel, &c.; but, now advised the patient to consult us. We advised the use of cubebs, in form of an electuary, to be taken leisurely; and to gargle the throat with a solution of murias hydrar. in the proportion of two grains to the ounce, intermediately.

Oct. 27th. Throat continues pretty much the same, but having seen the good effect of the treatment now in use, in several cases, advised the cubebs to be continued. Three tea spoonfuls daily, mixed in honey; also to continue the gargle of sublimate.

Nov. 5th. The throat looks better, and the patient thinks it is improving. The cubebs become more pungent than they were at first. Advised a continuance.

11th. Much better, parts look cleaner, and less red; continue cubebs, and gargle.

30th. Throat improves slowly; continue the same treatment.

Here our notes of this case end, we recollect, however, that this patient continued slowly to improve; and after a few months continuance of the gargle and the cubebs, he completely recovered.

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**ART. XIV.** *Case of fracture of a rib with injury of the heart.*

Nov. 18th. 1825. We were called to the case of Mrs. Faber who had fallen across a chair, by falling from an elevated situation, so as to break a rib, just over the heart. She suffers much

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sickness at the stomach, pain, and faintness. Applied a bandage around the body; and gave small doses of laudanum.

19th. Had a bad night. Distressed with palpitation, and stitches about the heart; wretched feelings of faintness, severe tearing pain in her bowels. Bled twice moderately, dose of castor oil.

20th. Rested last night, stitches and pain less; less faintness, pulse frequent, but not tense—bowels have not been freely open. Advised dose of oil. Evening, the oil has not operated, has suffered severe pains in the bowels, but no evacuations—repeat the oil—apply oil, brandy, and laudanum to the part affected.

24th. Patient has been generally improving—bowels have been kept open, low diet, and quiet enjoined—*anodynes* at night. Has been taking mixture of tart. of antimony, which is to be continued.

26th. Patient fairly convalescent. From this time she daily improved in strength, and soon regained perfect health. We have not often seen cases of inflammation of the heart, the few cases that we have seen were accompanied with that terrible anxiety, and distressing faintness, which attended this case three days.

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ART. XV. *Singular case of hiccup attendant upon bilious fever, successfully treated.*

Sept. 9th, 1825. Mr. M. has been nine days affected with symptoms of bilious fever of unusual violence; was bled and purged freely. The symptoms seemed to abate two or three days ago, and were succeeded by hiccup. To day the alvine discharges have been free, nearly natural, and attended with but little fetor. Pulse about a hundred; skin warm and moist. The hiccup, which comes on every few minutes, is preceded by a very disagreeable grin, showing most clearly some affection of the diaphragm. The symptoms have been gradually gaining ground, and at times becoming so intolerable as to induce him, now and then, to drink with a view to provoke vomiting, or, by thrusting a finger down his throat, he causes vomiting, and, thus he gets temporary relief. He has been taking sulph. ether, and laudanum, which seem to have increased the symptoms. Believing that he was much prostrated, we proposed the use of a mixture of two parts of laudanum, and one of ammonia, in tea spoonful doses, every hour. Two doses were given, but the

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disease was aggravated: the hiccup greatly increased. Agreed with doctor Jennings, whose patient he is, to give 2 grains assafet. and a half grain of opium, every half hour; and warm steam bath.

10th. The patient took, during the night, six pills, containing each two grains of assafet. and a half grain of opium. Slept now and then, *but the hiccup continued during sleep*. Thinks himself better, does not suffer so much, but the hiccup is still severe. Has no longer any inclination to vomit, with a view of relieving the hiccup. The grinning is less remarkable; pulse irregular, and upwards of a hundred: there is a constant perspiration. Agree to give a table spoonful of the following mixture: R Syrup. tolu ℥ss, prus. acid gr. x, aq puræ. ℥vj, m. A large blister was applied over the epigastric region; it acted well, and produced strangury. We now advised pretty free use of wine. Intellect now much disturbed; pulse feeble, irregular, and compressible. Resumed the opium and assafet. Suspend the prussic acid, and begin at three o'clock in the morning with quinine.

11th. The hiccup continued all night, but not quite so violent—he slept some, but the hiccup continued during sleep.—Skin warm, pulse 100, but equable with more volume. Mind much disturbed, of which he is conscious, but cannot arrange his ideas so as to express himself collectedly. Is taking one grain of quinine every two hours; and took the remainder of his mixture of prussic acid. Advised to continue the quinine, and take 3 grs. of assafet. every hour, till rest is procured, or till three doses are taken. Does not complain of his mouth, but there is obviously a mercurial odor. Has taken his wine during the day.

12th. Rested somewhat better last night; slept more, and had intervals of more than an hour of exemption from the hiccup. This morning pulse 100, and steady. Evening, pulse 120, feeble, and irregular; more prostration; skin cool. Almost continual sighing with occasional hiccup. Agree to continue the quinine, and the fetid pills *pro re nata*—wine to be taken freely.

13th. Had a restless night—pulse fuller and more equable 108, skin warm, a natural alvine evacuation. In the course of the night, an eruption took place exactly resembling small pox, and some of them fully suppurated. This evening, they are generally surrounded with a blush of red—his hiccup has been more moderate, but pretty severe for some time, pulse 114; skin warm; free perspiration; countenance more placid. Has taken wine freely, and one grain of quinine, every two hours: also two of the fetid pills—continue the same prescriptions through the night.

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14th. He had a restless night, but the hiccup was less troublesome—pulse 112, more firm; eruption much as yesterday. Skin warm, mind more rational. Continue quinine and wine; and, if necessary, give pills to appease the hiccup. His bowels have been opened 10 or 12 times to-day. Agreed to discontinue the assafoet. and give, in its stead, sp. nitre and laudanum.

15th. Patient had but a tolerable night, feels much prostrated, had a good deal of needless straining. He thinks the hiccup more painful, pulse 95, skin natural, pustules increase slowly, attended with a surrounding efflorescence. Mind rational, but he is peevish. Continue the wine and quinine. Can control the hiccup, by a draft of wine and water, a dose of quinine, or by the sp. nitre and laudanum.

16th. Tolerably free from the hiccup, but did not rest well. The pustules increase in size, and the skin is still inflamed; pulse about 100, and tense. Has been too much stimulated during the night. Advised to continue the wine more sparingly, and continue the quinine.

17th. Did not rest well last night, but he is nearly free from hiccup. Eruption continues pretty much the same; pulse 100, and rather firm, takes very little wine. He has a desire this morning to eat something—took a little mush and milk, but threw it up. He had, however, imprudently risen from his bed, and attempted to walk; a great trembling came on, with great prostration, followed by great agitation of the pulse, and raving delirium, hiccup, &c. Rest and two or three doses of sp. nitre and laudanum, soon quieted the disturbance. Evening, pulse 95, quick, and pretty firm. Has taken almost no wine, but has taken the quinine.

From this time our patient began to convalesce, and we discontinued our attendance. He soon regained good health, under the care of doctor Jennings, his family physician. We have often met with hiccup, in fevers attended with prostration, but we have never seen a case so distressing, as the one above related. His continuing to hiccup during sleep, is a phenomenon, we have never witnessed before or since.

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**ART. XVI. *Case of gangrene of the glans penis of great rapidity of progress.***

May 9th, 1825. Mr. S. C., case of chronic phymosis of long standing; symptoms of irritation, resembling gonorrhea, came on about five days ago, but without impura connection, as he

*Gangrene of the glans penis of great rapidity of progress. 509*

alleges, but which we do not believe. There was considerable swelling of the prepuce and whole penis. Cooling poultices were applied by doctor Giraud, whose patient he was; gangrene supervened under the prepuce, and on the under side of the glans penis. Hemorrhage came on in slight degree last night. Astringent stimulant washes were applied on lint, but the gangrene advanced, and to-day a violent and dangerous hemorrhage came on, and two or three pounds of blood were lost in a short time; on which account we were called in. We could introduce the finger into the opening of the prepuce, and feel the mutilated state of the glans penis.

The prepuce was split open, by a single stroke of the crooked bistoury. The lower or under half of the glans was found destroyed, and its surface covered with mortified portions of its structure; among these, the lateral artery, on the right side, was seen to bleed freely, but its mouth could not be distinguished. I took off the entire prepuce, and cleared off the ragged mortified portions on the glans; the artery was still too deep, and concealed, to be taken up by the tenaculum, we, therefore, secured it by means of the needle; the artery on the prepuce required a ligature, and was taken up by the tenaculum. We recommended dressing the sphacelated surface, with epispaetic ointment; and an anodyne to be given.

The patient is advanced in life, very corpulent, and subject to severe spells of gout.

May 10th. The gangrene has extended over the glands, but the prepuce remains sound—doctor Giraud omitted the blistering plaster. He is easy and there has been no hemorrhage. Introduced a catheter to prevent the urine from running on the sore; applied the ointment. Evening, catheter came out, gangrene has advanced very little.—Epispaetic has acted, and the patient has been quite easy all day.

May 11th. Complaining of no pain. Being strictured in the urethra, it is not easy to keep in a tube; by dressing the end of the penis with a cross-bandage, having a hole for the passage of the urine, it can be conducted off by means of a little paste board gutter, and the sore thus kept free from the urine. The parts adjoining the gangrened part, have been blistered by the ointment. The gangrene has not extended; but, so far as it appeared yesterday, the surface has become black, and sphacelated—it seems to be superficial—continue the epispaetic ointment; no fever, tongue clean.

May 12th. Has had but little pain, sphacelation has rather extended, but slightly however. This evening it seems to be arrested—still the diseased parts are not so well defined as would be desirable. The parts adjacent being blistered, we thought it



**600 *Gangrene of the glans penis of great rapidity of progress.***

unnecessary to continue the ointment. The part was covered with lint, wet in a strong decoction of bark; tongue pretty clean, pulse 70, bowels open.

May 13th. Rested well, and has no pain or fever this morning, but the sphacelation has slightly extended since last night. Advised small doses quinine, with sulphuric acid; and dressed the sore with carrot poultice, to be repeated every two hours.

May 14th. Has been free from pain—the disease has now extended nearly over the glans penis. There seems this morning to be a well defined edge to the sphacelation, and we expect the disease will probably end here. The surrounding parts are still raw from the blister. His pulse is a little frequent and jerking, but weak—inclined to sleepiness. Agreed to doctor Giraud's proposal to give bark by the mouth, and by enemata—and advised dressing the sore with some digestive ointment.

May 15th. No fever, rested well—affected part shows a clear separation of the sphacelated portion, and includes nearly all the glans penis. The membranous structure, surrounding the cells of the corpora cavernosa, are cut off; dressed with digestive ointment.

May 16th. Doing well, no fever, slough separating; continue same dressings.

May 17th. Slough separates but slowly, and seems to be progressing favorably. Doctor Giraud anxiously desired to apply sulph. quin. and honey; we consented, because we did not deem the change important, and because we were willing to see its effects, but believe some more mild emollient dressings would have been better.

May 18th. Still doing well—the honey and quinine did not smart, and agrees very well with the sore. Continue the same, and the bark a day or two longer.

May 19th. Separation progresses, we are suspicious chancre is forming.

May 20th. Doing well to-day, denies having exposed himself; and there is much less appearance of chancre to-day. No change of treatment.

May 23d. Slough has separated; doing well.

May 26th. End of the penis more chancereous, and does not seem to have healed any since we last saw it. Doctor Giraud is dressing with Ung. Hyd. Cœrul.

From this time the wound healed kindly, and his health rapidly improved, under the care of doctor Giraud. This is one of several cases of gangrene of rapid progress in the penis, which we have seen, all of which were of syphilitic origin, except this one, if we take the patient's word for it. Notwithstanding, that we knew such affections to be the result of impure connexion, we found nothing

so efficacious as cantharides ointment, for arresting the gangrenous action—after which the future treatment was regulated according to circumstances. We believe, however, it was always a local disease.

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**ART. XVII. *Case of Disease of the Eye.***

Feb. 21st, 1825, Mr. M. Case of enlargement of the eye—upwards of a year ago, the patient was injured by getting a piece of steel in his eye. Inflammation, and suppuration succeeded, and the eye bursted. It is now protruding out of the socket, and the eye lids much swollen, pain extreme. Expect extirpation will be necessary.

℞ Ung. Simp. ℥j.  
Plumb. alb. ℥j.  
Tinct. Opii gt. L. m. to be applied freely.

Feb. 23d. The ointment has lessened the pain in his eye.—But he is feeble, and feverish; tongue furred, and brown.

℞ Camph. ℥j.  
Submur. Hydr. gr. v.  
Tart. Ant. gr. j. m. ft. Pulv.  
No. X. one to be taken twice daily.

Feb. 26th. Considerably better, swelling and pain much abated. Has not taken his powders. Directed him to take them, and continue the ointment as before.

Feb. 28th. Doing well—eye much less swelled. Repeat prescription of the 21st—which is to be applied two or three times a-day.

March 4th. Very much better, swelling almost subsided, both of the eye lids, and of the eye: where it was bursted open, through the cornea, the eye seems to be healing.

℞ Pulv. Camphoræ, (see 23d ultimo.)  
To be taken as before.

March 9th. Eye vastly improved, it has subsided into the orbit, and the coats have united before, so as to have closed up the space occupied by the cornea. Continued the ointment.

This case continued to improve, and in a few weeks the eye was perfectly healed, and the patient in pretty good health. We believe he never had any further trouble with the affected eye, or rather, the cicatrix formed by the loss of the eye, which, we have already said, was in a fungous state.

**ART. XVIII.** *Case of Ulceration of the Throat, of an obstinate kind, and which afterwards appeared to have an epidemic character.*

Feb. 21st, 1825, Mrs. H. Case of ulceration of the fauces and throat, of some months standing. Complains of soreness just above the sternum, but there is no soreness on pressure. She feels unpleasant sensations about the ear, and angle of the jaw, showing the nerves located hereabouts to be concerned.—There appears to be something of a scrofulous character in the case. There is considerable pyalism, and has at times chills and fevers.

R Acid. Nitric. ℥ij.  
Aq. Puræ ℥ss.  
Sac. pur. ℥j.

Table spoonful of this to be taken three times a-day.

R Pulv. Cinchon. ℥j.  
Carb. Sodæ ℥j.

Misce—to be put into a quart of boiling water, and used frequently as a gargle.

23d. The patient is considerably better, throat less painful and paler; mouth and tongue clearer, and less fever. Continue the same medicines.

24th. Nothing remarkable, continue the same treatment.

26th. Patient improving—throat much better; tongue still very sore. Continue the same prescription.

March 1st. Improving, tongue still tender, but the throat is much better; and the pyalism much abated.

10th. Patient is not quite so well, has some fever at times, and the throat is more sore.

R Mur. Hydr. gr. j.  
Sulph. Quinin. gr. viij.  
Ol. Sassafr. gt. xxv.  
Aq. Puræ ℥ss.  
Sac. non. pur. ℥ss.

Misce—wine glassful morning and evening.

18th. No remarkable change. Repeat prescription.

26th. Improving, continue the same treatment.

Our notes do not extend further: but, from this time, however, nothing worthy of notice occurred, and nothing seems necessary further, than to state that our patient soon after regained her health. We stated that we had suspicions of this being a scrofulous affection, but future observations convinced me, that such a disease prevailed pretty extensively; and although very troublesome, and very obstinate, we did not fail in any instance, by per-

severance to eradicate the disease. We have elsewhere remarked, that most of the cases we saw, were in females; and we believe, they were all adults.

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**ART. XIX.** *Case of Hydrocele, attended with some peculiarities, but which terminated favorably.*

April 26th, 1825, Capt. S. of New England. Case of hydrocele, of 7 or 8 years standing, very large and having a peculiar shape—resembling very much the shape of the human heart, which shape was given to it by an oblong swelling below the testicle, which was turned a little to one side—more tender to the touch than is common to hydrocele. Has been pronounced a case of scirrhus of the testicle, more than a year ago, by a surgeon of high standing.

We proposed that arrangements should be made for the operation for injecting, if it turned out upon tapping, that this was the disease, which we confidently predicted would be found to be the case. Having drawn off the water, the case proved to be simple hydrocele. We drew off nearly a pint of fluid, and injected a solution of sulph. zinc in cold water—one drachm to three gills of water. Violent pain soon took place, and the fluid was let off in 5 minutes, and yet the pain continued so violent that we thought proper to give 46 drops of laudanum. Evening, the pain has abated, no heat or swelling has yet taken place, so that the patient is still pretty comfortable.

27th. Rested pretty well last night, some increase of heat and swelling, but it is moderate.

28th. The patient has very little pain or fever—the part continues slowly to swell, and is very tender to the touch. Advised dose of sulph. magn. and permitted him to sit up.

May 1st. The case is doing well, the swelling rather abating, some uneasiness after walking—cannot discover any water, but there is but little swelling or soreness.

3d. The patient seems to be doing well, but there is one spot of which we are a little suspicious of there being water deposited in it.

5th. Case still in some degree doubtful.

7th. To-day my suspicions are confirmed, of there being a collection of water in the cyst again, at the lower part of it.

8th. Punctured the scrotum and found about half a gill of fluid. Injected pure Lisbon wine, taking care to force it well in, so as to distend every part of the sac—it was left in 12 minutes. It occasioned severe pain, with tendency to syncope, but the

pain; he said, was not near so violent as that attending the first. The pain continued severe about two hours and then nearly ceased.

9th. The pain returned in the evening, and continued pretty severe for several hours, but he has but little pain this morning. Parts more swollen than after the former operation, attended with considerable redness and heat. Advised rest and low diet.

10th. The swelling diminishing somewhat, and less heat in the part—permitted to sit up.

From this time our worthy patient recovered rapidly, and was soon enabled to take charge of his vessel.

Many months, perhaps a year, after he left Baltimore, he returned to this port, and called to see us, and to inform us that he continued perfectly well.

This case presents some interesting particulars. He told us that he had consulted several of the most distinguished surgeons in America and Europe, no two of whom seemed to have the same opinion, nor did any advise any decisive measures for his relief. All this difficulty arose from the singular shape of the swelling, which no doubt, influenced the minds of those who had seen him. Had they taken the precaution to tap the swelling, all difficulty would have vanished. One gentleman in this city, to whom we have already alluded, advised him not to meddle with it so long as the pain could be borne, under an impression, that nothing but extirpation would afford relief, and that the amount of disease, was not such as to require so severe an operation for the present.

**ART. XX.** *Case of Strangulated Hernia; relieved by the taxis, aided by topical cold, and weak tobacco injections.*

JANUARY 21st, 1825, we were called to see Mrs. C., in consultation with doctor Birkhead. She was laboring under strangulated inguinal hernia for several hours. She has been bled copiously once, purgative injections were used, which seemed to empty the lower bowel. Two grains of opium quieted the pain, which had been violent, and checked a severe vomiting. The tumor is not hard, but feels rather flaccid. Ice has been applied to the part affected several hours, confined in a bladder. I succeeded partially in restoring the protruded parts to their proper situation—patient has become somewhat refractory, owing, I suppose, to extreme soreness of the parts.

There being now no violent symptoms present, I advised a continuance of the ice; and weak tobacco injections. These remedies had been used by doctor B., but I thought they might still be carried further, but not so as to produce too much nausea or prostration.

Evening—the ice was continued from 12 to 4 o'clock; and two tobacco injections were given. The tumor is now somewhat less, and less tense; but she is sick at stomach, and has vomited a little—pain severe at present at the *scrobiculus*. We succeeded by the taxis, after a few minutes pressure. We might here have proceeded to operate, but it has been a rule with us, never to recommend this operation, except as a dernier resort. Sometime we would observe, that, we have seen cases where we would not have waited six hours, had we not succeeded by the taxis; these urgent cases, requiring immediate operation, may be known by the violence of pain, and the sickness at stomach.

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**ART. XXI.** *Case of a Needle in the Thumb, which was attended with difficulty, but which terminated successfully.*

JANUARY, 1825, Mrs. Clark called on us, on account of a piece of a needle being lodged in her thumb—it was the pointed end, about two lines in length, and lay in the ball of the thumb. We made an incision, of about three fourths of an inch, over the point at which the extraneous body lay. After considerable search, we could not find any part of the needle. We put in a piece of sponge, with a view of keeping the wound open. The sponge was left in about ten days, and when taken out, the needle came with it. In similar circumstances, we should try the same method again.

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**ART. XXII.** *Case of Mortification of both Feet, and Legs, in which amputation was necessary, and terminated favorably.*

JANUARY 27th, 1825, we were called to a case at the Baltimore Hospital, of severe frost bite, or perhaps, more correctly, freezing of the feet. There was mortification of both feet, and extending for some distance above the ankles, occasioned by exposure,

some nights since to intensely cold weather. The mortification had existed sometime. We advised the legs to be surrounded just above the affected part, with cantharides plasters. It completely arrested the diseased action.

Opium and bark, with spirituous drinks were freely given, the inflammatory state of the system having passed away. The left foot is quite dead; toes black, and the mortification of the integuments extending over the foot, and half way up the leg. The integument dead on the right foot, but the toes are sensible, and not much discolored. Pulse very much hurried, soft, and compressible; delirium attends—the stomach retains the bark and drinks.

It was judged best, in consultation with my friend, doctor Mackenzie, to amputate the left leg just below the knee, and make an effort to save the other limb. We operated in the usual way. There was some little difficulty in getting the arteries, in consequence of their retracting more than usual. The pulse sunk somewhat under the operation, but bore up better than we expected. The patient continued delirious after the operation. Fifty drops of laudanum were given before the operation, and wine in moderation to support him, while on the operation table.

We have no further record of this case, but we recollect that the same or next day, our friend, doctor Granville Townsend amputated, in our presence, the other leg, which rapidly became completely sphacelated.

The patient being very much reduced, was sustained by the bark, wine, and light nourishing diet. Upon opening the stumps on the fourth day, a little of the integument was found to be in a sphacelated condition, around the legs. We dressed by surrounding the stumps with blistering plasters. These had the effect of completely arresting the mortification; but the part affected, about three-fourths of an inch in width, and for a considerable distance around, sloughed out and left the covering for the bone less perfect. It was not such, however, as to retard the cicatrization materially. The patient did well, the stumps healed pretty kindly, and were well covered in, by the muscle and skin.

This case at one time, seemed to support the old rule, that we must not amputate a mortified limb, till the mortification is stopped. M. Larray is, we believe, the first who called in question this opinion, and, to prove by actual practice, that in traumatic mortification, we should pursue a different course. The mortification in the case before us, being the result of exposure to a low temperature, while the body was in a state of health, and inflammation following rapidly upon this injury, we viewed it as a case of recent injury, which might be classed with other wounds.

But we feel confident, that this patient would have been lost, if we had not been acquainted with the properties of the cantharides, as a corrective of gangrenous action. Our experience before and since, has been sufficient to justify us in the belief, that this is one of the most important discoveries in modern surgery—we mean the use of cantharides in cases of gangrene.

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**ART. XXIII.** *Case of Sarcocoele or Chronic Orchitis, successfully treated by tying the spermatic artery.*

JANUARY 25th, 1825, Capt. S. We performed an operation on this gentleman, for taking up the spermatic artery. The cord in this case lay unusually deep, there being a good deal of fatty structure between the skin, and the process covering the cord. Having made tense the parts covering the cord, we made a deep cut, about an inch and a half long. In doing this, with a single stroke of the scalpel, we cut an artery of unusual size, which passed directly across the cord, and nearly in contact with it. We felt a momentary apprehension that we had cut the epigastric, which we supposed might be given off lower down than usual. But we were soon led to conclude, that our incision was too low down, and not deep enough to reach this artery. It bled freely, from both ends, and required a ligature upon each. I had, by my first incision, laid bare the spermatic cord, excepting those folds of cellular membrane, which immediately envelope the cord. These were gently split open, which enabled me to pass a finger under the cord, by gently working the finger through behind it. The cord was now raised upon the finger, but still there was considerable difficulty in finding the artery. We found on the under side of the cord, what doctor Annan and myself considered the spermatic artery, but we were disappointed in this; it was but a branch. The vas deferens was plainly seen of unusual size, but otherwise apparently healthy. A renewed search was made for the artery, and it was found beating strongly under the cremaster muscle. The muscle was turned aside, and an attempt made to expose the artery, but we found some difficulty in this, and the patient complained very much of the pain. I passed a suture needle, armed with an animal ligature, through a portion of the cord, including the artery. After applying the ligature, no pulsation could be felt below it. This disease was of some years standing, and was completely cured by the operation.



**ART. XXIV. Case of confirmed Phymosis, in which circumcision became necessary.**

MAY 2, 1825, G. F., five years of age, has phymosis of some time standing, occasioned by his forcibly retracting the prepuce, in playing with the parts, behind the corona glandis penis. It has been badly managed—the prepuce is now all swelled into one great tumor, and the upper part of it is cutting in behind the *glans*. Advised warm fomentations of milk and water, and poultices of bread and milk, with a little flaxseed. The parts are highly inflamed, and very painful.

3d. Part less painful, but still much swelled—continue the same dressings.

4th. Finding no improvement in the case, except some mitigation of the pain and swelling, and there being an amount of deformity and hardening of the part, which forbids all hopes of ever replacing the prepuce, we thought proper to extirpate the diseased mass, which included the entire prepuce. By pinching up the part affected, on the side of the penis, just where the skin was drawn tight behind the corona glandis, a free incision of the part was made, by carrying the edge of the knife parallel with the length of the penis. The other side was separated in a similar manner, and then the part between, and on the under side, was stricken off with a single stroke of the knife. The skin on the upper side was set free, and the gland presented a natural appearance—the case now differed but little from one where common circumcision had been practised.

6th. Patient doing well, parts natural, wound behind the corona healthy—advised simple dressings. This patient soon recovered without any material impairment of the member affected.

**ART. XXV. Case of Ossification of the Lens, with luxation through the pupil.**

WE have seen one case of complete ossification of the vitreous humor. The subject of this disease, upwards of thirty years of age, had no recollection of ever having seen with the eye thus affected. But from some cause unknown, or at least, not now recollected by us, the lens made its escape through the pupil, and occupied the space between the cornea and iris. It caused so much pain and inflammation, that the patient was obliged to

come from a distant county of this state, (St. Mary's) for the purpose of seeking relief.

An incision was made in the cornea, in the usual way for extraction, but after extending this incision as far around the margin of the cornea, as was considered consistent with a safe healing of the wound, we still found considerable difficulty in removing the offending body, owing to its size, and especially its roughness. To avoid danger to the eye, and facilitate our measures, we broke up the lens with small forceps, and removed it piece meal.

No unpleasant symptoms followed—we took the precaution of confining him to bed, in a dark room; and restricted him to a low diet; kept the part cool, by means of cool wet applications, &c. In about ten days this patient left us, well satisfied that he had escaped from such great distress, since, he had undergone the operation, without any hope of recovering his vision. The eye appeared to be amaurotic, but the other did not appear to be unsound or imperfect in any respect. From the time he left us, we never heard what became of him, but doubt not, he did well, or we should have heard from him.

*Case of semi-ossification of the lens, with luxation through the pupil.*—Since the occurrence above related, we were called, by our friend doctor Donaldson, to the case of a young lady, who had the lens luxated into the fore part of the eye. The lens was of a yellowish opaque color, and of a cartilaginous hardness, attended with much irritation and pain—we extracted the lens in the usual way, and, no untoward symptoms occurring, our patient was soon restored to her usual state, but she was amaurotic, in both eyes.

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ART. XXVII. *A Treatise on the Venereal Diseases of the Eye.*  
By WILLIAM LAWRENCE, F. R. S., &c. &c.

I. *Syphilitic Iritis; Iritis Syphilitica.*

[This article is copied from the London Medico-Chirurgical Review, for January, 1831. We have copied, as well the remarks of the editor, as of the author—these will be readily assigned by the reader, to their respective authors, and, therefore, need no distinguishing marks.]

The iris is liable to inflammation from various causes, of which  
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syphilis is, perhaps, the most frequent. A description of the origin, progress, and consequences of the syphilitic form, will nearly serve for those of all the rest.

The membrane lining the chambers of the aqueous humor resembles that of the serous cavities, and in it, as in them, inflammation is attended by effusion of albuminous fluid or coagulated lymph. The structure and situation of the texture affected will account for our not observing the four ordinary concomitants of inflammation, swelling, redness, heat and pain. But effusion is a common occurrence, and is indiscriminately known as coagulable lymph. It changes the color and appearance of the iris, impairs and destroys its motions, occasions adhesions to the surrounding parts, alters the form and size of the pupil, and produces more or less destruction of vision. Iritis is an adhesive inflammation; it is attended with enlargement of the vessels of the sclerotic, and consequently, by preternatural redness of the eye, increased sensibility to light, and lachrymal discharge. Such are the general characters of iritis. We next proceed to consider the symptoms more in detail. And first of—

*Change of color in the Iris.* This is one of its most striking characters. A light-colored iris becomes, under inflammation, yellowish or greenish, occasionally distinctly yellow; if the eye be blue, it sometimes assumes a bright green tint. Generally the tint, of whatever color, is of a dull and muddy cast, and darker than natural. A dark iris, when inflamed, presents a reddish tinge. There is a complete loss of the natural brilliancy of the iris, it grows dull and dark, and its beautiful fibrous arrangement is either confused or entirely lost. These changes commence in the pupillary margin. In the early stage, the very edge of the pupil only may be affected, the internal circle is then altered in color and thickened, and afterwards the external or ciliary edge is implicated. The alteration of color is produced by effusion into the texture of the organ, and is such as would arise from blending the yellowish or brownish color of the lymph with the natural hue of the iris.

*Various Appearances of the effused Lymph.* The deposition of lymph may be variously modified: 1st. It may be effused into the iris, producing the changes of color alluded to. 2dly. It may form a thin layer, covering a larger or smaller surface. Thus, the edge of the pupil first, and subsequently the lesser circle, may assume a reddish brown or rusty color in the beginning of the affection. The discolored part has a rough villous appearance, and on looking at it closely, particularly sideways, we generally find a slight elevation and irregularity of surface produced by this new deposit. Sometimes the stratum of lymph has a light yellowish brown or ochrey tint, and a loose villous texture,

rising into obviously prominent masses. The rusty color is most common, especially in the blue irides; the other is seen in the grey or orange-grey. This deposit is usually confined to the inner circle, but the outer is generally more or less discolored and dull. 3dly. The lymph may be effused in distinct masses or tubercles, of a yellowish or reddish brown color, sometimes of a bright red. They vary in size from that of a pin's head to that of a split-pea. Often there is only one; there may be two or more. They may be deposited on the edge of the pupil, or in any part of the anterior surface of the iris. If the inflammation is very active or the treatment inefficient, the lymph is sometimes so abundant as nearly to fill the anterior chamber, when it has a light dirty yellowish color, and often a loose semi-transparent texture. 4thly. Under violent inflammation coagula of blood are sometimes mixed with the tubercular masses of lymph. Mr. L. has seen this when the inflammation was not of the most violent kind. 5thly. Lymph may be poured out from the margin of the pupil or uvea, so as to agglutinate them partially or generally to the capsule of the crystalline. A mass of lymph sometimes fills the pupil; more frequently a thin greyish web stretches across the opening, which is rendered cloudy. Lymph may be effused in considerable quantity into the posterior chamber, and either make its way through the pupil into the anterior chamber, or cause a bulging of the sclerotica, penetrate that membrane, and form a tumor under the conjunctiva. The swelling in these cases has sometimes a yellowish appearance on its most prominent part, from which, with the intense redness and violent pain in the eye, suppuration of the globe has been suspected, and the part punctured. No pus has escaped. Mr. L. thinks he may assert that suppuration never takes place in the syphilitic iritis, the inflammation being always adhesive, the changes produced by the effusion of lymph.

Mr. Lawrence has never seen hypopion in this disease; nor those bright yellow convex masses which burst after a time, allowing the escape of a yellow matter, which falls down in the anterior chamber. The latter have been considered as peculiar to idiopathic iritis, but our author has seen them in two or three instances in which a syphilitic origin was dubious.

The effusion into the texture of the iris, producing the general change in its appearance, and the reddish brown discoloration of its inner circle, with thickening of the pupillary margin, are generally the first alterations observed; they may take place separately, but are usually conjoined. As the inflammation proceeds the tubercular masses appear. In the most violent degree, large effusion takes place into the anterior, or posterior chamber, and the pupil. As the several modifications of effusion

depend on the degree of inflammation, they may be variously combined together, according to the stage of the inflammation, and effects of the measures adopted. Occasionally, however, the inflammation, although violent and of long standing, is characterized by general discoloration alone, or with the addition of a thin stratum of lymph on the inner circle of the iris. In some instances, the tubercular deposition of lymph takes place with hardly any other appreciable alteration.

*Motions of the Iris and state of the pupil.* "The motions of the iris must be seriously impaired by the changes just described, more particularly by the interstitial effusion of lymph. It moves sluggishly at the commencement of the inflammation, and, when effusion has taken place, its movements are entirely suspended; the preternatural connections by adhesion concurring with the change of structure in producing this effect. The pupil, consequently, cannot exhibit the ordinary variations in size; it is contracted, and it becomes smaller and smaller in the progress of the affection. At the same time, the effusions of lymph and the adhesions change the figure of the opening, rendering it angular, and often extremely irregular. Together with other changes, the pupil sometimes undergoes an alteration in situation, being apparently drawn upwards and inwards, or towards the root of the nose. It may deviate in other directions. The margin of the aperture is thickened, and has a villous or spongy appearance in the beginning of the disease, presenting a strong contrast to the thin, sharp, and well defined edge which naturally belongs to it. The effusion of lymph into the aperture, which has been already noticed, destroys its clear black color, and gives it a dull cloudy appearance."

*Increased Redness of the Eye.* Round the cornea is a red band, deeper colored in front, and gradually shaded off behind, the circumference being comparatively clear. In the commencement of the affection, the sclerotica, as in all other cases in which it is inflamed, exhibits a pale pink redness, and the vascular trunks lying on the membrane are seen of a deeper pink tint under the unaltered conjunctiva. They advance in nearly straight lines from the circumference of the globe, ramifying towards the front, and are lost in the pink zone. The redness of the sclerotica and distention of its trunks increase as the affection proceeds. The vessels of the conjunctiva soon become partially enlarged towards the anterior part of the eye, and are distinguished by their scarlet color; their fine close ramifications combine with the pink redness of the sclerotica to form the vascular zone round the cornea. The minute vessels terminate abruptly at the edge of the cornea under which they probably pass to the iris.

The zone varies in breadth; it is of a deep vivid red in acute iritis when fully developed; and in iritis of the most violent kind all the external vessels of the globe are equally affected, giving to it an uniform fiery redness. The red zone lasts as long as the inflammation of the iris, and is connected with it in its origin and decline. The whole iris is usually inflamed, but only one point may be so; and then the redness of the sclerótica is confined to the point opposite to it. In general inflammation of the iris, one part may be most acutely inflamed, and opposite that the external redness is greatest.

*State of the Cornea and Aqueous Humor.* From the vascular connections between the sclerótica, cornea, and iris, a change might be anticipated in the state of the cornea from inflammation of the latter. General haziness occurs at first; nebulous opacity comes on when the inflammation is violent and long continued. In most cases the cornea generally is affected; but partial opacity may exist with the general haziness or nebula. Rarely there is ulceration of the cornea. These corneal affections add to the imperfection of sight caused by the changes in the pupil. No change in the state of the aqueous humor, whilst the cornea remains clear, none can be discerned when the cornea is hazy or opaque.

*Intolerance of Light and Pain.* There is generally some, and often considerable intolerance of light in the beginning; with lachrymation on exposure to it. These symptoms probably depend on the implication of the sclerótica, and they continue, although the quantity of light admitted into the eye is constantly diminishing in consequence of the changes produced in the pupil and cornea. There is generally more or less pain from the commencement, the degree varying according to the acuteness of the attack. It may be accompanied with burning sensation and tension, deep-seated in the globe; extending to the head and preventing sleep entirely. On the other hand, the pain may be slight, even with considerable effusion of lymph and loss of sight. Patients often complain of great pain in the temple, brow, or cheek, as if it were seated in the bone. The pain is chiefly at night, and when present in the day it is exasperated at night time. Dimness of sight occurs in the commencement of iritis, and, as the changes in the pupil and cornea occur, vision becomes more imperfect or altogether destroyed.

*General Symptoms.* The constitutional disturbance is very various. Acute iritis may be attended with the symptoms of inflammatory fever, or the symptoms may be slight, nay, entirely wanting.

*"Progress and Extension of the inflammation. If the inflamma-*

tion, having attained its full development, should continue, the iris swells, or appears to swell; that is, it approaches towards the cornea, becoming convex in front, diminishing the anterior chamber, and sometimes having its surface puckered and irregular. Is this an actual swelling of the iris, real thickening of the part from interstitial deposition? or mere protrusion by the swelling of the parts behind, by the effusion of lymph, or by aqueous secretion? Dissection has not yet elucidated these questions.

If the progress of the affection be not checked, it does not remain limited to its original seat in the iris. At first it appears on the very border of the pupil; then shews itself on the inner circle; and subsequently extends to the outer circle, presenting the combination of symptoms already described. Supposing it to go on without interruption, it passes from the ciliary circumference of the iris to the corpus ciliare, the choroid coat and retina, with increase of pain and fever, and ultimately with irrecoverable loss of vision, from the change of structure in the retina. At the same time, the mischief is propagated forwards; the cornea becomes more opaque, the conjunctiva more inflamed, and great external redness is added to all other symptoms, so that the case, which was at first simple iritis, becomes ultimately ophthalmitis, or inflammation involving the external and internal tunics generally.

The question naturally occurs, whether the inflammation, when thus propagated to the posterior tunics, presents in them the same characters as in its original seat; that is, whether it is attended by effusion of lymph? I have never had an opportunity of dissecting an eye in this state of the disease, nor are any such dissections recorded. The escape of lymph through the sclerotica, which has been already mentioned, and the bulging of the globe at some distance behind the cornea, in cases where it is disorganized by this inflammation, which certainly is not owing to suppuration, would lead us to suppose that the question ought to be answered in the affirmative. Sometimes the internal tunics suffer generally from the beginning; and vision is impaired, although the pupil may remain clear. The term *iritis*, implying that disease is confined to one texture, is not properly applied to such cases."

*Acute and Chronic Iritis.* These are loose terms, serious mischief may occur in a few days, or weeks may elapse without it. Extension of inflammation to the posterior tunics is most to be dreaded in acute iritis, but the chronic form is not exempt from this danger. The milder degree of inflammation may creep on to the ciliary body and adjacent parts, producing in them changes of structure capable of injuring or destroying sight.

**Effects of Iritis.** When the inflammation is at an end, under favorable circumstances, the iris may be completely restored, whether it has been simply discolored, or effusion of lymph has taken place either in a thin stratum or tubercular masses.

**Adhesions of the Pupil.** The lymph thrown out in iritis speedily becomes organized, producing new formations of a permanent character.

"Thus when the inner circle of the inflamed iris has regained its natural appearance by the progress of absorption, the edge of the pupil is found preternaturally fixed to the chrySTALLINE capsule. It may be closely attached at one or more points, the rest of the circle being free. More commonly the connexion is effected by slender threads, long enough to allow some motion; there may be many of these fringing the whole opening, or only one. Such adhesions are dark colored; that is, they are of the same color as the edge of the pupil or the uvea, partaking, like other adventitious formations, of the nature of the surface which produces them. Under suitable treatment in an early stage, adhesions of the pupil are sometimes detached, leaving behind, at least in some instances, black marks on the capsule, which, I believe, are permanent. These marks escape notice in consequence of the blackness of the pupil; they are, however, sometimes detected, on close examination, with a strong light, on the eye. I have seen a complete circular series of such marks, which I discovered while accidentally examining the eye with the sun shining upon it. The patient had labored under iritis; and the pupil, which had been fixed to the capsule in its whole circumference, was completely liberated by the means employed. A tubercle of lymph, effused on the edge of the pupil, will produce a broader adhesion, fixing, perhaps, one-third or one-fourth of the circle. The changes now described must necessarily affect the figure and motions of the pupil: they often render it very irregular, and impair or destroy its motions. Mere alterations of figure are not injurious to vision; which is just as good with the most irregularly shaped pupil as with a circular one; and we often see perfect vision with great and permanent contraction of this aperture. It must be understood, of course, that the retina is uninjured, and that the pupil, however irregular or small, is clear."

**Change of Texture and Color in the Iris.** If much general effusion has taken place, and has proceeded uncontrolled for some weeks, the texture of the iris is permanently changed, being altered in color, diminished in lustre, and confused in its fibrous texture. Sometimes it is marked with small dark specks; sometimes it is of a leaden hue. These changes concur with the ad-



tion, having attained its full development, the iris swells, or appears to swell; that is, it apper, becoming convex in front, diminishin ber, and sometimes having its surface puck Is this an actual swelling of the iris, real thi from interstitial deposition? or mere protrusi of the parts behind, by the effusion of lymph cretion? Dissection has not yet elucidated th

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*Effect of Irida.* When the inflammation is at its height, under favorable circumstances, it may be completely removed, whether it has been long continued, or effusions of lymph have taken place either in its centre or tubercular masses.

*Adhesions of the Pupil.* The pupil then is not in action, especially becomes organized, and new formations of a permanent character.

Thus when the inner rim of the inflamed iris has regained its natural appearance by the process of absorption, the edge of the pupil is found generally fixed to the chrysothaline capsule. It may be easily told at one or more points, the rest of the circle being free. In examining the examination is effected by slender threads, by means of which some number there may be many of these edges the whole appearing, or only one. Such adhesions are not such that it, they are of the same color as the edge of the pupil in the rest, resembling the other adventitious formations, or of a nature of the surface which produces them. Under similar treatment it is very easy to get adhesions of the pupil are sometimes detached, having retained at least in some persons, black marks on the capsule, which I believe, are permanent. These marks escape notice as a consequence of the thickness of the pupil; they are, however, sometimes detected, on close examination, with strong light on the eye. I have seen a complete circle with distinct marks which I discovered while accidently examining the eye with the eye shining upon it. The patient had noticed earlier with the pupil, which had been fixed to the capsule in its usual configuration, was completely altered by the same inflammation. A tubercle of lymph, effused on the edge of the pupil, will produce a broader adhesion, being perhaps, essential or constitutive of the circle. The changes now described must necessarily affect the figure and surface of the pupil; they often render it very irregular, and imper or better in various. These alterations of figure are not observed in nature, which is just, as good with the most irregularly shaped pupil as with a circular one; and we often see perfect vision with great and permanent irregularity of the aperture. It must be understood, of course, that the retina is unaltered, and that the pupil, however irregular or small, is clear.

*Change of Texture and Color in the Iris.* It is much commoner for fusion to take place, and has permanent consequences. In a few weeks, the texture of the iris is permanently changed, and altered in color, diminished in texture, and sometimes in the texture. Sometimes it is marked with much dark matter, and times it is of a leaden hue. These changes are not observed in

hesions of the pupil, in lessening or destroying the motions of the part.

*Adventitious Membrane in the Pupil.* If the lymph thrown out on the crystalline capsule, be not soon absorbed, it is organized and forms an opaque adventitious membrane adherent to the capsule and the pupil, and corresponding in dimension to the size of the pupil at the time of the effusion. The opacity is greatest in the centre. In the contracted pupil it fills the whole aperture, but when the edge of the iris is withdrawn, it is surrounded partially or entirely by a clear black margin, and the iris is attached to it by adhesions either close or in the form of short black threads. These adhesions sometimes divide the clear part of the pupil into small roundish or irregular apertures, when the pupil does not act under the influence of light, and the application of belladonna is usually necessary. If the effusion has only partially occupied the pupil and margin of the iris, the adventitious membrane will be found towards one side instead of the centre, the edge of the pupil being fixed to it, and thus drawn out of the regular line, while the rest of the opening is natural. This state is attended with more or less injury to the sight, but the patient may read a little by means of belladonna.

*"Closure of the Pupil.* When large effusion has taken place into the posterior chamber, it is organized into a dense opaque substance, to which the entire circumference of the pupil is closely fixed, the opening itself being greatly contracted, or actually shut, and generally removed more or less from the centre of the iris. By this complete closure of the pupil, (*atresia iridis perfecta*,) the communication between the two chambers is destroyed, and the passage of light into the eye, almost entirely intercepted, with corresponding loss of sight. By means of the adventitious membrane thus produced, the uvea may be rendered generally adherent to the crystalline capsule; and there may be a large anterior chamber: or the iris may have been previously pushed forwards and in contact with the cornea, so as to destroy the anterior chamber.

*Atrophy of the Globe, and Fluidity of the Vitreous Humor.*—When large effusion has occurred into both chambers, and when lymph has been deposited behind the iris, in such a quantity as to cause bulging of the sclerotica, or to escape through the membrane, and raise the conjunctiva into a swelling, it will be completely removed by absorption, when the inflammation has ceased. But the internal parts of the globe are so altered in structure, that it becomes flaccid, and reduced in size; (*atrophia bulbi*;) This change sometimes takes place after complete closure of the pupil. A fluid state of the vitreous humor (*synechia*,) and con-

sequent softness of the globe may take place after acute syphilitic iritis of long standing, without shrinking in size or atrophy."

*Impaired Vision.* When the inflammation has extended to the posterior tunics, it often leaves behind it impaired vision in various degrees; although it should have been arrested by proper treatment. This may take place in chronic cases as well as in acute. After an apparent cure, the eye remains preternaturally sensible on exposure to cold or damp, or after exertion. This is chiefly observed when the inflammation has been considerable, or has lasted long from neglect or injudicious treatment. Repeated and troublesome relapses may be the consequence.

*Diagnosis.*—The tubercular depositions of lymph, the reddish brown discoloration of the iris on its inner circle, the nocturnal exacerbations of the pain, the angular disfiguration of the pupil, and its displacement towards the root of the nose, together with the previous existence of syphilis, and in most instances, the concomitant existence of other syphilitic symptoms, clearly distinguish the venereal iritis. The local symptoms alone are not always sufficient, for we sometimes see merely a general discoloration of the part such as might occur in idiopathic or arthritic iritis. The age of the patient, and the previous and concomitant circumstances, tend to clear the difficulty. In idiopathic iritis there is either no distinct deposition, or it occurs as a bright yellow elevation out of the texture of the part, which increases to a certain size, then breaks, allows the escape of a yellow matter, which sinks to the bottom of the anterior chamber. Such abscesses are not seen in syphilitic iritis. In the arthritic species, lymph is effused from the margin of the pupils, but not deposited in a distinct form, and the adhesions are generally white. Both in the idiopathic and arthritic iritis, the pupil generally retains its circular figure and central position. Mr. Lawrence, however, has seen the effusion of reddish, brownish, or brownish-yellow lymph on the iris in several instances, both of children and infants, in whom no suspicion of syphilis could be entertained.

*Causes.*—We must look on syphilitic iritis as a secondary symptom, and, until we can explain the occurrence of other secondary symptoms, we must remain in the same darkness, respecting the nature of the connection of this with the primary disease. It usually appears without any assignable cause, although cold, wet, and other external influences, may excite it in those who are predisposed to it.

*Other Concomitant Syphilitic Diseases.* Sometimes it occurs alone, but usually it is accompanied by such other symptoms as eruptions, papular, scaly, tubercular, and pustular; ulceration of the throat and mouth; pains of the limbs; and swellings of the

periosteum. As it belongs to the earlier class of syphilitic affections, it sometimes shews itself, like the other symptoms of that class, before the primary disorder is cured:

*Syphilitic Iritis in Infants.* This is rarely seen; by Mr. Lawrence only twice. In one case there were excoriations and ulcerations round the anus; the iris was dull and dark colored; the pupil slightly contracted; and there was some redness of the sclerotica. In the other case, the father having had primary venereal sores before marriage, the child, in a few weeks after birth, had an eruption all over the body, wasted, and seemed on the point of dying. It got well under the use of mercury in very small quantities. In a few weeks more, severe inflammation of the eyes came on, mercury was employed, the inflammation was arrested, but the child remained blind. Mr. Lawrence has seen syphilitic inflammation of the internal tunics, occurring, as a secondary symptom, in conjunction with scaly eruption, after the infection of a chap on the hand, by the contact of discharge from sore in delivery.

*Is Iritis caused by the use of Mercury?* "An opinion has partially prevailed, that the use of mercury is capable of producing iritis. Some have considered that syphilitic iritis, as well as other secondary symptoms, either are rendered more frequent and severe by the employment of this remedy, or owe their very existence to it; while others have spoken of iritis generally as being caused by it. I have seen no instance of iritis, of whatever kind, in which there has appeared to me, any reason for ascribing the occurrence of the complaint to this cause. In nine of the cases related on this paper, iritis came on where no mercury had been taken previously to its appearance; and in some of them the complaint was severe, and produced consequences injurious to vision: and in others mercury had been administered only in small quantity, and the mouth had not been made sore; and there is not one in the whole list in which the remedy had either been employed for a long time, or affected the system severely. Iritis occurred in some cases, which had been treated by Mr. Rose and doctor John Thomson without mercury. Doctor Ekström, of Stockholm, informed me that he had seen many similar instances in the patients of an institution, where the use of mercury in syphilis had been entirely abandoned for a long time. Iritis took place in a woman who had contracted syphilis from suckling a diseased infant, and had taken no mercury."

*Prognosis.* This is favorable when the affection is recent and confined to the iris; indeed we need not fear considerable changes, when this only is affected, for very considerable effusion may be removed. We must examine carefully whether the posterior tunics are involved. The changes in the cornea and pupil may

impair sight considerably, and yet it may be ultimately restored. Nay, even considerable impairment of vision is sometimes found where the cornea is clear, and the pupil not visibly obstructed, and yet the sense is recovered, so that even affection of the retina is not necessarily a ground of unfavorable prognosis. When the whole iris is changed in color, with considerable contraction of the pupil, and an opaque substance in it, with intense external redness, great and deep seated pain, and complete extinction of sight; the case is hopeless. Mr. L. has not seen vision recovered, when there is large effusion behind the iris, particularly if it has occasioned bulging of the sclerotica, or made its way through it. Considerable imperfection of sight may be removed if the affection is recent, but cases differ so much that we can hardly speak of definite periods. We may fairly expect to arrest the inflammation and remove its effects, when the *iritis* has lasted a fortnight or three weeks. In one case, active inflammation had gone on for six weeks, yet the recovery of sight was nearly perfect. We must take a combined view of the activity and duration of the inflammation, before we decide on the probable termination. We often effect much good in cases that appeared desperate.

*Treatment.* We have three principal objects in view: to arrest the inflammation, prevent the further effusion of lymph, and promote the absorption of that already poured out, and to prevent the dilatation of the pupil. These may be accomplished by antiphlogistic measures, the employment of mercury, and the use of belladonna. Whenever the inflammation is acute, without constitutional disturbance, when we fear the extension of the inflammation to the posterior tunics, and more particularly if such has occurred, we must bleed generally and locally, purge, give salines with antimony and aperients, keep the body and the eye at rest, in short, use the items of the antiphlogistic treatment. When the disorder is less violent, cupping and leeching will suffice; the latter may be advantageously employed in many instances which are not of the most acute kind. Whenever there is feverishness, particularly if the pulse is full and strong, general bleeding may be had recourse to, but the absence of such symptoms does not contra-indicate the practice. If the local complaint be serious and threaten mischief, the treatment may properly begin with venesection, if nothing forbids its employment. Neither should we hesitate to repeat the bleeding whenever the state of the part of the system calls for it.

Local applications are comparatively of little consequence; the patient's feelings must be our guide as to the use of warm or cold. Blisters are not applicable to the acute stage of the disease, especially if applied near the eye.

We now arrive at a very important subject for consideration, the exhibition of mercury. Antiphlogistic measures may have arrested the acute symptoms of inflammation, but still the action of the capillary vessels too frequently continues, the effusion of lymph goes on, and destructive changes are in progress. We must give mercury, not as a purge, nor in alterative doses, but so as to put the system under its influence. It then cuts short the inflammation, and stops the effusion of lymph, when that already thrown out will be absorbed. The redness of the eye diminishes, and sudden relief is felt; the lymph begins to lessen and is soon removed; the color of the iris is restored last. The red zone round the cornea looks pale and soon disappears.—Mercury to do this must be used freely. It should be commenced after the abstraction of blood locally or generally, and after purging. The best form is, two, three, or four grains of calomel to one-fourth, one-third, or half a grain of opium every night, six, or in urgent cases, every four hours. The influence of the remedy will be soon perceived. Under particular circumstances blue pills, the hyd. c. cret. or mercurial friction may be employed instead of the calomel. In respect to the extent to which mercury should be carried, and the length of time that it should be continued. Mr. Lawrence observes, that the more powerful its action on the system, the more effectual is its control over the disease. Sometimes a mild course may fail, when a more powerful influence will quickly do the business. Full salivation quickly produced, cuts short recent disease, as by a charm. The remedy may then be suspended, and its effects allowed to subside slowly, which will take two or three weeks; it will not be necessary to give more mercury. In general, indeed, it is sufficient to make it sensible in the mouth. In cases of longer standing, we must persevere until the lymph is absorbed, until the natural color of the iris returns, the red zone round the cornea is gone, and vision is restored. This will require four, six, in some instances, eight weeks. A longer time is usually required in relapses and second, than in first attacks.

It may naturally be asked, if iritis absolutely requires the exhibition of mercury? It certainly does not. It may run its course without any treatment, but then it produces effects more or less injurious to vision. Again, iritis may be controlled by common antiphlogistic means, but in general, they are not to be depended on in arresting the effusion of lymph. Although the inflammation may not be violent, the pupil will contract, and lymph be thrown out, and although the disease may be checked and subside, leaving the organ apparently recovered, adhesions and adventitious membranes will permanently injure vision.

"During the time that I was surgeon to the London Ophthalmic Infirmary, I frequently saw patients who had been treated by common means, and in whom general disorganization of the iris, contracted, closed or partially adherent pupil, obstruction of that aperture by adventitious organizations, and loss or serious injury of sight, had resulted from inflammations that might have been checked by mercury, without leaving any permanent ill consequence. I may observe that iritis, of whatever kind, is an affection easily managed: that it rarely fails to yield to proper treatment, even when the case has been originally neglected; and that the serious effects just detailed, are chargeable to injudicious management only. A strong contrast to such is afforded by those, in which mercury is properly administered; the cure in the latter being rapid and complete, and the occurrence of pyalism, being in general attended with the most decided improvement in all the symptoms. In this latter respect, the action of mercury exerts a much more marked influence over the complaint than the loss of blood. These points are fully illustrated by cases VII to X, XII, XIV to XVII, and XIX to XXVIII. In these, and in many other instances, which have come under my observation, the continued progress of the inflammation until the system was brought under the influence of mercury, the immediate cessation of the pain, and the corresponding diminution of all the other symptoms as soon as the mercurial influence was established, have afforded the most unequivocal proof of the great power which the remedy possesses over the complaint."

In viewing iritis and considering its treatment, the effusion of lymph and the importance of preventing or removing it form a prominent object of attention. Similar effusions and interstitial depositions in the serous membranes, are productive of comparative little evil. The effects of mercury are most marked, after active antiphlogistic treatment alone: the other, mercury alone. Mr. Lawrence, as we have seen already, sides with neither.—The result of his experience is, that the successive or combined employment of antiphlogistic means and mercury, give the quickest relief, and effect the most perfect cure. Mercury is certainly used with the greatest effect in the active period of inflammation, and acute form of the complaint. But it is as certainly given with advantage, occasionally after the active period is gone by, when only the apparently permanent effects of inflammation remain, organized adhesions, and considerable impetfection of sight. In such cases it has essentially improved vision, and therefore it is best to give it a trial. As the circumstances are not urgent, the mercurial influence may be slowly produced, but the effect should be kept up for some weeks. As local appli-



ocations, a solution of the oxymuriate of mercury and the red precipitate ointment have been used. They are inadmissible in the acute stage; and of no use, as mercurials, in the chronic.— But when patients complain of severe pain over the orbit at night, six grains of the mercurial ointment, with two of finely powdered opium, well rubbed in before the time at which the nocturnal pain is expected to recur, will generally prevent it.— Mercurial frictions on the brow do not, however, arrest the inflammation as the internal use of the remedy does.

The third object which engages our attention, is the artificial dilatation of the pupil, in order to preserve its natural figure and dimensions. Certain vegetables, by their action on the iris, produce this curious effect. The *atropa belladonna*, *hyosciamus niger*, *lauro-cerasus*, and *datura stramonium*, possess the power in question. The usual mode of proceeding is to rub the moistened extract on the brow, or drop a solution of it into the eye. The latter is the most efficacious; a scruple of the extract being rubbed down with an ounce of distilled water, the fluid filtered through linen, and two or three drops being introduced between the lids. Doctor Reisinger, prefers a solution of the hyosciamine or atropia, the active narcotic principles obtained from the plants enumerated, to the other methods of dilating the pupil. He uses a solution of one grain of hyosciamine to a drachm of distilled water. In an old woman the pupil remained dilated for seven days after its application. When the organ is inflamed and painful, the moistened extract rubbed on the brow, should be employed; under other circumstances the solution should be dropped into the eye. If we wish to produce the greatest influence in the quickest manner, we should employ both methods at the same time. The immediate effects of these narcotics is enlargement of the pupil, or, in other words, contractions of the iris, which loses its power of motion, and is said to be paralysed. The effect is usually produced in half an hour, and lasts for several hours, or even some days. It is not uniform in all individuals, being greater in proportion to the healthy state of the eye. A temporary amaurosis is produced by it, but no permanent injury to the eye ensues. In the country, belladonna is almost exclusively employed, and what is remarkable, its influence on the iris is not in the least diminished by use. Patients occasionally complain of undefined uneasiness after its application, but Mr. L. doubts how far this is justly attributable to it.

Adhesions of the pupil prevent its dilation more or less completely, according to their nature and number. A general and close attachment precludes it altogether, while partial adhesions only affect the part in which they are situated, and allow of dilatation elsewhere. When the adhesions are through the medium

of long and slender threads, a limited degree of motion is allowed. Belladonna and other narcotics are capable of dilating in many instances where the iris is no longer affected by variations in the quantity of light. Its permanent condensation of lymph, under violent and in uncontrolled inflammation, renders it altogether incapable of motion, and incapable of being acted on by narcotics. The artificial dilatation of the pupil must be combined with the use of mercury, in order to prevent the contraction to which there is such a tendency in iritis, for belladonna will not answer when the iris is highly inflamed. But the application, if used to the brow, does no harm, and may even be advantageous by preventing further contraction. If adhesions have already taken place, belladonna will, if the effusion be recent, elongate the margin. But to do this, it is necessary that the case be recent, and a full mercurial action be combined with the belladonna.—Under these circumstances, Mr. L. has seen the whole edge of the pupil detached from the capsule of the lens, to which it had adhered, and the capsule has exhibited a circular arrangement of black spots, marking the number and situation of the adhesions. These marks are of a dark color, derived from the uvea, and, as far as Mr. Lawrence has seen, they are permanent.

If we cannot explain the exact *modus operandi* of the mercury in iritis, it need not create astonishment. After all the experience of three centuries in syphilis, the powers and effects of mercury are disputed. Certain it is, the mercurial influence is beneficial in the idiopathic, as well as syphilitic iritis, although its full influence is less decided. In the rheumatic form, Mr. Lawrence has employed it with decided advantage, and its more moderate employment in alterative doses is generally useful.

The transparency of the cornea, renders the case of iritis particularly well adapted for the studying the effects of mercury. We can observe by the alterations effected by disease and by our treatment. We observe that mercury puts a stop to the increased action of the capillary vessels, on which the effusion of lymph depends. It may readily be imagined that this fact must have attracted the notice of all who have watched in a philosophic manner the diseases of the eye; and it may be easily conceived, that the idea of employing mercury in other inflammation tending to the production of coagulable lymph, would present itself to the minds of reflecting men. It has done so, and inflammation of the retina, whether acute or chronic; inflammation of the serous membranes, as the pericardium, pleura, and peritoneum; nay, according to Mr. Lawrence, phlegmonous inflammation of the thigh, yield more or less to the influence of mercury, when ordinary antiphlogistic treatment will fail. Whether it promotes absorption, except by arresting inflammation,

appears to Mr. Lawrence problematical. In fine, the powers of mercury in inflammation, and that of more tissues than the serous, are so great and so striking, that we cannot more than glance at the subject at present. How much might be written on the use and abuse of mercury now?

Mr. Carmichael, of Dublin, has lately recommended the employment of turpentine in iritis, in cases where mercury is inadmissible. He gives it in ℥j doses three times daily, its nauseous taste being best disguised by almond emulsion. Two ounces of the conf. amygd. should be used to the half of water, the residuum being removed by straining. The following is Mr. Carmichael's formula—℞. ol. terebinth. rect. ℥j, vitallum ovi uniss. Tere simul. et adde gradatim, emulsio. amygdalarum ℥iv, syrupus corticis auranti. ℥ij, sp. lavendulæ compositi ℥iv, ol. cinna-mon; gt. tres vel quartuor. Sumat. coch. ij max. ter die. In a few cases it has been necessary to increase the quantity of the turpentine to an ounce and an half, or two ounces in the mixtures, the other ingredients being proportionally diminished, and the dose being a drachm and a half or two drachms. The stranguery, so apt to follow, is obviated by infus. lini and mit. camph. but when very urgent, the turpentine may be suspended for a time. The tendency to acidity in the stomach, is relieved by the addition of ten or fifteen grains of the carbonate of soda to the eight ounces of mixture. If inflammation runs high, local abstraction of blood may be necessary, as when mercury is used in general it is not required. The state of the bowels requires attention, and constipation must be prevented. Such are the opinions of Mr. Carmichael, Mr. Guthrie has made trial of the of the remedy at the Eye Infirmary. In some cases it has succeeded admirably; in others it has been of little service; and in some unequal to cure the complaint. Mr. Lawrence has had no experience of it.

This concludes the history of syphilitic iritis, the most complete, perhaps, that has been offered to the British public. The manner of handling it, is certainly monotonous, unnecessarily dry, and too tautological. But the matter is good, the information offered is derived from practical experience, and we must look on the whole as a contribution of no mean value to ophthalmic surgery. We are next presented with the details of twenty-nine cases. We have not space for many, but cannot refrain from noting a few.

**Case 1. Acute Syphilitic iritis, with papular eruptions, extensions and repeated effusions of lymph on the surface of the iris—atrophy of the globe.**

W. W. aged 21, a stout healthy man, had a sore on the prepuce, in the middle of May, 1827, and soon after a bubo in each groin. He took pills, the sore healed, the swellings subsided, but his mouth was not made sore. In six weeks eruptions appeared, and he consulted a quack doctor without benefit. About the 8th of August, he began to have pain in the right eye, and on the 16th there were the usual symptoms of *iritis*. The sclerotica was of a bright pink hue round the cornea, while numerous turgid trunks were seen lying farther back—the conjunctival vessels were distended—the iris had a dull muddy appearance, without any trace of the natural fibrous structure, the inner circle being reddish brown, whilst in the outer this tint was mixed with a dull yellowish color—the pupillary margin was thickened and irregular—the cornea dull, and the anterior chamber generally cloudy—the eye painful, especially on exposure to the light, with epiphora—vision very imperfect. There was also pain in the shin bones—a declining papular eruption over the body—and a few papulæ on the mucous membrane of the eyelids, where they formed yellow points as large as a pin's head. Calom. gr. ij. opii gr.  $\frac{1}{2}$  6tis hora. Moistened extract of belladonna to eyebrows—milk diet.

On the 19th, the patient was worse—the iris was darker colored, and the anterior chamber more obscure. Hirud. vj. tempor. On the 20th, a mass of light colored lymph had been effused on the lower and outer part of the iris, which was more discolored, and very irregular. On the 21st, the mass of lymph had increased. *Mercurial liniment to be rubbed on the arms night and morning.* On the 23d, the eruption was disappearing, and the pains in the bones were gone, but the eye was acutely painful, and the effused lymph was increased. The mouth was very sore. On the 27th, another small effusion of lymph had taken place below the former, which was rather increased. On the 30th, no abatement of the inflammation or pain; one large brownish yellow mass of lymph occupied nearly the lower half of the iris. *Twelve leeches to the eye.* Great relief was experienced, and on the 4th Sept. the external redness of the eye was less, the pain was gone, and the mass of lymph was diminished. The pupil, dilated by belladonna, was quite misshapen by adhesions. On the 11th, the lymph was almost entirely absorbed, the eye altogether much improved, the pytalism severe. *Omr. infric. P. c. cal. et. op. b. d. tantummodo—broth diet.* On the 15th, he was allowed some meat

and beer, and there was a relapse on the 18th. *Cal., et op 6tis hor., emp. canth. temp. dext. Continua meat and beer. 21st.* Effusion of lymph renewed in former situations. *Milk diet.* The blister produced no vesication, and next day the eye was worse. *Hirud. xij.—emp. canth. et. postea cerat. subina.* The blister and sarsine obviously aggravated the inflammation, the lymph was increased on the 25th, and there was a further deposition into the texture of the iris. Sixteen leeches were applied on the 26th, 27th, and 29th of Sept. with favorable results, the absorption of the lymph proceeded slowly, and on the 6th October, eighteen leeches were applied. On the 8th, there was a relapse of inflammation attributed to cold. *Hirud. xx.* Next day the leeches were repeated, and inunction with the mercurial ointment commenced. The patient, however, grew dissatisfied, and resorted to an oculist. On the 7th March, 1828; he returned, having completely lost the sight of the right eye, which remained inflamed and painful. We need not mention the treatment in the interim. There was now considerable external redness, especially on the lower and outer part of the globe, where a collection of dark red vessels were seen. Nearly the whole anterior chamber was occupied by a quantity of lymph, which allowed only the upper part of the iris to be seen; it was of a reddish-brown appearance. There was a deep seated aching in the globe, and the right orbit and temple were constantly painful. *Hirud. xij., tempor.—Ung. Hyd., 3j., nocte manequa infric. Cal. gr. ij., Op. gr. j., bis die.* The mouth was made sore—the inflammation of the eye gradually subsided, and at the end of two months atrophy of the globe had commenced and was proceeding.

*Case 2. (III.) Syphilitic Iritis of both Eyes—acute in the left, and terminating in atrophy.*

"THOMAS ROBINSON, æt. 19, of pallid complexion, and apparently strumous habit, thin and weak, had a sore as large as a sixpence on the outer surface of the prepuce, about six months ago. It healed under the application of the black wash, and the use of a few mercurial pills. He has had no other syphilitic symptoms. Ten weeks ago he found his eyes becoming very weak; they watered a good deal, and he was obliged to discontinue his work as a steel polisher. About the same time he received a blow on the left eye from a piece of twisted paper. He has completely lost the sight of the left eye for the last five weeks: vision of the right eye has been much impaired for the same time. The left eye has suffered serious change of structure from the acute internal inflammation, which still continues, and has altered the figure of the globe, by causing a bulging of the

lower anterior part of the sclerotica. The iris and pupil are in close contact with the cornea; the pupil being contracted, but not filled by any opaque substance. At the lower part of the iris there is a considerable and irregular deposition of lymph, brownish, and apparently mixed with blood. On the prominent part of the sclerotica there is a round protrusion, equal to a small pea, of light brownish appearance, covered by conjunctiva. It seems to be a portion of lymph making its way through the sclerotic coat, and it leads to the supposition that the distention and bulging of the sclerotic coat, as well as the contact of the iris with the cornea, are caused by an internal deposition of lymph, similar to that which is effused upon the iris. The inflammation has extended to the outer tunics; there is considerable and general external redness, but the vascular trunks are largest and most numerous over the prominent portion of the sclerotica. The accompanying pain has not been in proportion to the vascular congestion, the effusion of lymph, and the disorganization: it has not interrupted rest, and is at present inconsiderable. The eye is absolutely insensible to light. No disorder is observed in the right eye on a superficial view; but closer examination detects in the iris and pupil effects of languid or indolent inflammation, the character and consequences of which are strongly contrasted with what has occurred in the other eye. The iris has in a great measure lost its natural brilliancy and fibrous appearance, and its lower half has a slight yellow tint.—The pupil, in point of size, is in about its middle state, and adherent throughout by a series of minute short dark filaments, which give it a fringed appearance. There is some redness round the margin of the cornea, and this is most conspicuous below, opposite the yellow discoloration of the iris. He can distinguish letters an eighth of an inch in length, with some difficulty, and cannot see any of a smaller size. He has no pain, heat, nor uneasiness in this eye, nor any pain in the head or temples."

He was cupped on the temples to 12 ozs. and had calomel and jalap. On the 15th, he was ordered *Cal. gr. ij. Opii. gr. ʒ, 6tis hor. Belladonna superciliis*. On the 21st, the mouth was decidedly affected. The left eye was much improved; the external redness was gone from the upper part of the globe, and the quantity of lymph was diminished. The appearance of the right eye was not much changed. *Cal. et Op., bis die*. On the 25th, the mouth was less affected, and there was little alteration in either eye. *Cal. et Op., t. d.* On the 31st, the mouth was again sore. The left eye felt flaccid, and unresisting to pressure. On the 19th Jan. the left eye had shrunk considerably, the globe being so flaccid that it felt quite soft through the palpebræ; the

lymph was completely removed from the anterior chamber, and the prominent tubercle on the sclerotica was absorbed. The right eye was quite natural, excepting the pupillary adhesions, but vision was still imperfect. The mercury was continued so as to affect the mouth, up to the 8th of February, when he was discharged. He could read the smallest print by day-light, but not so perfectly by candle-light, the left globe was considerably shrunk.

*Case 3. (VII.) Syphilitic Iritis of the left eye, without any other constitutional symptom.*

JAMES TAYLOR, æt. 25, a stout healthy man, a paviour, had been salivated six or seven times for the venereal disease. In November, 1827, he had a sore on the penis, with buboes and eruptions, the mouth was affected for a short time with mercurial frictions, and he soon got well. Whilst in the hospital, with the mouth still sore, he was attacked with an inflammation of the eyes, which subsided under two cuppings and aperient medicines. He continued well till the 28th April, 1828, when he experienced dimness of sight in the left eye, soon followed by pain and inflammation. It became gradually worse, nothing was done for it, and he re-entered St. Bartholomew's Hospital, on the 5th of May. There was now considerable external redness—the iris was dull and discolored throughout, and did not move on exposure to light, which caused no increase of pain nor lachrymal discharge—the pupil was partially dilated—the cornea was dull, with a general cloudy appearance in the anterior chamber—the patient suffered little in the day, but the pain in the eye prevented rest at night. He could not distinguish even large print with the left eye, and saw indistinctly with the right, which was affected sympathetically. *C. c. temp. sinist. ad 3 xiv. Cal. et jal. Postea haust. purg. Ung. Hyd. fort. gr. vi. Pulo. opii, gr. ij. supercillio nocte infric.* On the 6th, he had 12 leeches, and was ordered *Cal. et Opii, 6tis hor.* On the 8th, he was cupped on the back of the neck to 16 ozs. On the 9th, salivation had occurred and the eye was much improved. On the 1st of June, he was discharged perfectly well.

*Case 4. (XII.) Syphilitic Iritis of both eyes, with primary sore and bubo, and papular eruption—no previous use of mercury.*

JOHN ROSE, æt. 20, of strumous diathesis, applied at St. Bartholomew's on the 27th October, 1825. There was a superficial healing ulcer on the prepuce, with a firm and rather indurated cicatrix, shewing the sore to have been originally more extensive—a healing ulcer, the size of half a crown, in the groin—an

eruption over the whole body of thinly scattered red pimples, which suppurated slightly, and then declined, being most numerous on the face—well marked iritis of both eyes, most advanced in the left. The irides, especially the left, were of a dull yellow green; the pupils extremely irregular from slender adhesions; a considerable zone of external redness round the cornea, which in the left eye was hazy—vision greatly impaired, especially in the left eye—little pain in the eyes, and that only at night—skin and conjunctiva slightly yellow, no fever. Three months previously he had contracted the sore behind the glans, and a bubo, which suppurated. Five weeks previously he had been confined by jaundice. The eruption and inflammation of the eyes had existed seven days. Cal. gr. ij, opii gr.  $\frac{1}{2}$  6tis hora. Extract. belladonna palpebr. D. Lact.

On the 30th, the mercury had produced no effect; the iritis was increased. The left cornea was very dull, and he could see nothing whatever—severe pain in the head, preventing sleep. C. c. temp. sinist. ad.  $\frac{3}{4}$  xiv vel  $\frac{3}{4}$  xvj. Cal. et opii, 4tis horis. The mercury affected the system in twenty-four hours, and the symptoms regularly and rapidly decreased. On the 3d of November, the mouth was very sore. To discontinue the mercury. On the 6th, the primary sore was healed, and the induration removed; the eruption had disappeared, leaving only a few slight discolorations of the skin. Vision was restored. The irides had recovered their natural bluish-gray tint, the pupils were largely dilated and most of the adhesions had given way, the cornea were perfectly clear, the red zone nearly gone. On the 9th, the adhesions had nearly disappeared. On the 14th, there was a slight blush of redness on the sclerotica of the left eye. Pil. Hydr. gr. v. t. d. On the 16th, redness was increased, with slight pain in the eye. Cal. et opii 6tis hora. On the 18th, the mouth was sore and the redness diminished. On the 21st, the right pupil had again become adherent at two points. On the 25th, the mercury was discontinued. Vision and the natural color of the irides were restored; the pupil adhered at two or three points in each eye. On the 30th, he was discharged cured.

*Case 5. Syphilitic Iritis, treated without mercury, and ending in contraction and adhesion of the pupil, with dimness of sight.*

“Mr. J. aged 22, of light hair and complexion, and robust habit, had an ulcer of the glans of moderate size, for which he took blue pills, so as to effect the mouth slightly.—The sore healed in a fortnight, and he used the remedy about three weeks. There was no affection of the glans. Two months



he had inflammation of the eyes, which first appeared in the right, and in a few days attacked the left also. It lasted about a month, and was attended with redness, increased sensibility to light, lachrymation, and considerable pain; the latter coming on severely after he went to bed, lasting through the night so as to prevent sleep, and becoming less in the morning. No suspicion was entertained that this was syphilitic; no mercury was used, but active antiphlogistic measures were resorted to, including venesection, loss of blood by cupping three times, and numerous applications of leeches. When the inflammation had subsided, dimness of vision remained in the left eye, but the right recovered completely, although the pain had been most considerable in the latter.

In a few weeks after the cessation of the inflammation, this gentleman consulted me on account of his left eye, in which I found a slight alteration in the color and appearance of the iris, and several thread-like adhesions of the pupil, fixing the aperture in a state of contraction. He could see objects and even read in good light, but found a mistiness or dimness before the eye. He had also copper-colored scaly eruptions on the palms and fore-arms, and ulcerations of the tonsils, although these symptoms had troubled him so little that he did not mention them to me, and I found out only in consequence of questioning of him on the subject. I ordered him two grains of calomel, with one-third of a grain of opium thrice daily, and the solution of the extract of belladonna to be dropped into the eye. I saw him again at the end of a month, when I found that the mouth had been affected by the mercury, and that it still continued moderately sore. The eruption and sore throat had entirely disappeared, and the dimness of vision in the left eye was entirely gone.

*Case 6. Syphilitic Iritis of both Eyes, mercury not previously used—one eye cured by the antiphlogistic treatment—mercury necessary for the other.*

JOHN DURMOT, æt. 22, a groom, admitted into St. Bartholomew's on the 23d of June, 1829. Sclerotic of the right eye of a light pink hue, on the point of the globe, the color being deeper on towards the margin of the cornea—iris dull and sluggish, the greater circle being nearly of the natural color, the lesser reddish brown or rusty color, from the general effusion of lymph into its texture—edge of the pupil slightly thickened; and adhering by a single brown thread—color of the pupil natural—considerable pain in the eye, increased at night on exposure to light, frequent epiphora—vessels of the conjunctiva partially targid—cornea un-

affected. He cannot read even a large print. The left eye exhibits similar appearance, but less in degree, and a single thread of adhesion appears on the pupil. A month or six weeks before Christmas he had gonorrhea. About Christmas he had a small sore on the prepuce, and a swelling in the groin. He merely took some salts, and the symptoms disappeared in a month. At Easter he got wet, and rheumatism in the limbs, and cough and pain in the chest supervened, for which he was bled, and of which he gradually recovered. The affections of the eyes began three weeks ago, that of the right the first. He has had six leeches and lotion, but no mercury. *C. c. tempor. ad 3viv—Cal. et jal. postea pulv. purgans.*

On the 24th, there was a headach and feverishness. *V. S. ad 3xx. H. sal. antimonial 6tis hora.* 26th, *C. c. nuchæ ad 3xvj—Ext. belladonna superciliis.* July 1st, right eye now well, and vision nearly perfect. The disease has advanced in the left eye, which is more painful. The belladonna always increases the pain, and must be left off. *Hirud. xij. oculo sinistro.*

On the 3d, the inflammation was not diminished, although the strength was much reduced. A full papular eruption had appeared. *Cal. gr. ij. opii gr. ½ 6tis hora.* The mercury at first caused purging, without affecting the mouth, but in the course of a fortnight, ptyalism had been induced, and it was then discontinued. The natural appearance and powers of both eyes were completely restored, the eruption was nearly gone, and the health was much improved on the 22d. He was dismissed cured on the first of August.

*Case 7th. Syphilitic Iritis. occurring during the use of mercury, and affecting both eyes in succession—very acute in the left eye—repeated relapses.*

SARAH BRIAN, æt. 17, a common street walker, admitted into St. Bartholomew's hospital, with a vaginal discharge, condylomatous excrescences, and sores about the anus, and an eruption half itch, half of scaly syphilitic character on the trunk and extremities. The sore had appeared about three months previously. The mouth had been made lightly sore by mercury. Common means were used with good effect, but on the 10th of December the livid discoloration continuing, she was ordered *pil. Hydr. gr. v. bis die.* On the 16th, the right eye was affected with iritis; there was increased vascularity of the sclerotica, general discoloration and dulness of the iris, and fixtured of the pupil in about the middle state.

On the preceding night she had suffered severe pain on the globe. *V. S. ad 3xiv. Hirud. xij. P. c. Pil. Hydr. fot. papav.*

She was relieved by these means. On the 22d, all traces of the iritis were gone; the mercury was discontinued, the mouth having been sore for two or three days. A glandular swelling in the neck suppurated, and the patient was not discharged till January 20th, the gums being still a little tender.

On the 30th, she was admitted with most acute inflammation of the left eye. It had commenced on the second day after her discharge, and rapidly increased—there was unremitting and severe pain over the brow, and intense general headach. The sclerotica was almost of a violent tint—the cornea generally hazy—the anterior chamber cloudy—the iris dark and dull from general effusion into its texture, whilst a distinct mass of reddish lymph was deposited at its lower part near the pupil, which was motionless, irregular, and moderately contracted. *V. S. ad ʒxxx. Hirud. xij. Vesp. Cal. et Jal., postea haust. sennæ. Cal. et Op. 4tis hor.* Next day she was better. All the textures of the eye were less inflamed, and lymph on the iris was a little diminished. The bleeding had produced faintness, and the blood had a firm buffy coat. The mercurial setor was perceptible in the breath. *Hirud. xij. haust. sennæ.* On the 4th February, a very marked improvement in the state of the eye had taken place. The inflammation of the conjunctiva and sclerotica was considerably diminished—the iris had nearly regained its natural color, though a small quantity of lymph seemed still to remain where the mass was before observed, producing unequal dilation under the use of the belladonna. Two days previously pytalism had come on, and the calomel had been discontinued. *Moistened extract of belladonna to be smeared over the brow.* On the 6th, vision was much better. The pupil was more dilated, and exhibited three strongly marked irregularities from points of adhesion. On the 10th, she could distinguish small print with perfect ease, and the adhesions appeared to be giving way. On the 16th, vision was perfectly restored; the pupil was freely dilated by belladonna; the adhesions scarcely perceptible.

On the 19th, the eye was again inflamed. There was increased redness of the external tunics, and a considerable brownish discoloration of the iris at its inner circle. Vision was rather confused; no material pain in the globe. *C. c. tempor. ad ʒxij. haust. sennæ.* The eye was relieved, but hemicrania was complained of, and menstruation was deficient. *Pil. alo. c. myrrh.* On the 27th, there was again a slight relapse of inflammation of the left eye, with considerable headach. *C. c. tempor. ad ʒx.* No blood was obtained, and on the 28th, there was more discoloration of the iris. *Hirud. xxiv.* March 1st, headach more severe. *V. S. ad ʒxiv.* She was much relieved by this. On

the 1st of April, violent inflammation attacked the right eye, chiefly the sclerotica and iris, with great pain in the globe and in the head, and inflammatory fever. The left eye was slightly affected. *V. S. ad syncopen.* (42 oz.) The blood was buffed, and next day the symptoms were diminished. On the 3d of April, the improvement was still more decided. *Ht. sal. &c.* On the 6th, a relapse of inflammation. *V. S. ad 3xij.* On the 8th, *Hirud. xij. Empl. canth. nuchæ.* The symptoms were very much relieved, but on the 15th, there was partial relapse in the same eye. On the 16th, the inflammation was more severe. *Pil. Hydr. sub. c. nocte maneque. Hirud. xviii. tempor. dent.* She gradually recovered, and was discharged early in May. Since leaving the hospital, she has had three smart attacks of pain in the globe, but each yielded to a few leeches, a brisk cathartic, and the subsequent use of quinine. The catamenia have in some measure returned, and she follows a laborious occupation without difficulty.

*Case 8. Syphilitic Iritis treated ineffectually, on the antiphlogistic plan, and immediately arrested by the use of mercury.*

Ann Holly, aged 21, was admitted into St. Bartholomew's hospital on the 9th of October, 1828, with gonorrhea, large ulceration at the lower part of the entrance of the vagina, and a small indurated sore on the right nympha. On the 19th, she complained of pain in the left eye, which was a little redder than usual; six leeches were applied. The inflammation was more considerable the next day, and seated in the sclerotic coat: although there was no decided affection of the iris. I pointed it out to the pupils as being probably the very commencement of syphilitic iritis, and affording a favorable opportunity for trying the antiphlogistic plan. A large cupping was ordered from the temple, with an active purge of calomel and jalap. These means afforded no relief; and on the 22d, the iris had become dull, and sight was a little dim. (Twelve leeches round the eye; two grains of calomel, with one-third of a grain of opium, every six hours.) No relief was experienced from the leeches; but the mercury acted on the system in forty-eight hours, and the affection was immediately checked. All appearance of inflammation had gone in four or five days, and she was discharged well on the 5th of November.

*Case 9. Syphilitic Iritis—adhesions of the pupil, destroyed by the use of mercury and belladonna.*

Lucy Adams, æt. 20, admitted on the 21st November, 1828, with a small sore on each labium, and inflammation

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of the external tunics of the right eye; the sclerotica was affected. The eye had been sore for three days. *C. c. temp. dext. ad ℥xij. cal. et jal. postea haust. senna, Lot. Saturni. D. lact.* On the 24th, *hirud. xij. oculo. Pil. Hyd. gr. v. nocte maneque.* The inflammation of the eye gradually grew worse, and ended in a well marked attack of syphilitic iritis. The iris was dull, discolored, the pupillary margin was adherent in such a manner as to render the pupil transversely oblong. There was a pink zone round the cornea, pain in the eye, the brow and head, and dimness of vision. *C. c. temp. ad. ℥xij. Cal. gr. ij. Op. gr. ½, Stis hor. Belladonna supercil.* The mercury acted quickly and powerfully, immediately arresting the adhesive inflammation of the iris. On the 1st December, the effused lymph was completely absolved, the iris had regained its natural color and brilliancy, and the round figure of the pupil was restored. She was discharged on the 10th.

Case 10. Syphilitic Iritis, with other syphilitic affections, in an infant.

Jane Mudie, æt. 26, and her female child, 16 months old, were admitted into St. Bartholomew's under my care, on the 31st of March, 1827. The mother had a discharge from the vagina, with ardor urinæ, three months before the birth of this child. The discharge continued till about three months ago, when she noticed sores on the external organs of generation. The labia, perineum, and verge of the anus, are now occupied by elevated, warty, and ulcerated excrescences.

The infant, which was large and healthy at birth, had purulent inflammation of both eyes on the third day, and was taken to the London Ophthalmic Infirmary, where it soon recovered. At the age of five months, a pustular eruption appeared on the neck, which soon went away. A discharge was then observed from the vagina; the labia swelled, and were excoriated; as this got better, flat warty excrescences appeared on the perineum and round the anus. Their surface is now ulcerated, as in the mother.—(For the mother; pil. hydrarg. gr. v. night and morning; black wash. For the child; hydrarg. c. creta, gr. iv. twice daily; frequent ablation of the affected parts.) The symptoms, both of the mother and child, yielded to this treatment, and they were discharged well in about three weeks.

They were readmitted on the 25th of May. The mother has now redness and swelling of the tongue at its apex, with an ulcerated fissure in the middle; and a superficial sore, with yellowish surface, on the mucous membrane of the lower lip. These sores have existed for a fortnight; there is no return of disease

about the external organs, (hydr. oxymur, gr.  $\frac{1}{2}$  in. dococt. sarsap. comp. lb. j. daily.) The child has excoriations and ulcerations round the anus, which reappeared in a week after leaving the hospital. She has also in the left eye, iritis in a mild form, which the mother ascribes to a cold caught by having the head wetted. It began three days ago. The iris has lost its brilliancy, and assumed a dark tint; the pupil is a little contracted; there is some redness of the sclerotica, and of the upper lid, and slight intolerance of light; (hydr. c. creta gr. v. night and morning.)

24th—A small red and painful spot has appeared on the side of the tongue, near its basis in the mother. The child's eye is worse, (three leeches.) The mild mercurial treatment above described was continued, both for the mother and child, till the 4th of June, when they were discharged, all symptoms having been completely removed. They were seen at the hospital some time afterwards, quite well.

We now pass to the second division of this able author's work—it treats of syphilitic ulceration of the eye-lids.

#### SYPHILITIC ULCERATION OF THE EYE-LIDS.

##### 1. *Syphilitic eruptions of the palpebræ.*

Syphilitic eruptions, particularly the scaly and tubercular, frequently appear on the external surface, and on the ciliary margins of the lids. The latter are almost always red, excoriated, and sore in that form of syphilis imparted to an infant by a diseased mother or nurse, which is always confined to the skin.—The mucous lining of the palpebræ, sometimes participates in the syphilitic eruptions, but not so often as reason would leave us to expect. In case first, there were papulæ on the internal surface of the eye-lids. Some years ago our author had a gentleman under his care, with acute papular eruptions following chancre. The eruption extended to the mucous lining of the palpebræ, in which there were several pustules about as large as a pin's head, with some uneasiness and general swelling of the lids.—They required no particular treatment—active antiphlogistic measures were employed. In August a scaly eruption appeared on the legs, the marks of the papulæ were still visible on the face; and the left upper lid was still red and rather swelled, the conjunctiva red and thickened, and the marks of the papulæ very evident. A patient was twice in St. Bartholomew's hospital; first for phagedenic ulceration of the labia, and one nymphæ, and subsequently for tubercular eruption, node of one shin, and swelling of the upper eye-lid of one eye. The conjunctival lining was swollen, and an eruption of small pustules were observed

upon it. She took calomel and opium freely; her symptoms quickly disappeared, and she was discharged cured.

2. *Syphilitic ulceration of the eye-lids.* It is not very rare, yet it is not described in works on syphilis. Our author's attention was first attracted to it many years ago, by a case in St. Bartholomew's hospital. A stout woman, who has long been on the town, was admitted with an ulcer which had nearly destroyed the lower eye-lid. The surface was grayish, with bloody points, the edge towards the cheek livid and sloughy, the discharge ichthyous; the neighboring parts were acutely inflamed, and the face swollen; the sore and its vicinity acutely painful. There was no other venereal affection, local or general. Our author did not suspect syphilis, and employed leeches, fomentations, poultice, and opium without benefit, for the lid was completely destroyed. He now affected the mouth with calomel and opium, in two or three days the sore acquired a healthy appearance, and cicatrization soon followed. He now entertains no doubt, that the ulcer was syphilitic. Soon afterwards Mr. L. had another case of a similar kind, and in the last few years he has seen so many,\* as to have learned that the progress and character of such sores are various, in this as in other parts of the body.

The ulcer commencing on the ciliary margin, like a sty, may occupy the whole thickness of the lid; or it may arise on the mucous surface and never extend beyond it. In one patient affected with syphilitic ulcers and periodical swellings, the left upper eye-lid was red and swollen, and on its eversion there was seen on its inner surface a sore as large as a sixpence, with a twany surface, and not reaching the edge of the lid. Mr. L. has seen several smaller sores at the same time, on the mucous lining of both upper lids. The ulceration is sometimes acute, attended with inflammation and great pain, and rapidly destroying the affected part. In other cases there is little inflammation or pain, the disease proceeds slowly, and the cure is accomplished almost without loss of substance. The character of the sore will vary of course. The acute ulceration is of the phagedenic character, with red margin, sharp edge, furred unequal surface, on which bloody points are seen, and severe pain. In the chronic there is swelling and some hardness of the basis of the sore, with expansion of the cutaneous texture, instead of loss of substance, and little or no pain. Ulceration of the eye-lid, generally occurs in conjunction with other syphilitic symptoms, such as

\*Professor Von Ammon, of Germany, has treated lately on syphilitic affections of the eye-lid, attended sometimes with caries of the orbital ridge. We have presented our readers with a translation of his views in the present volume.

ulcers in other parts of the body, swellings of the bones or periosteum. In case 1st, the affection of the lid was the only secondary symptom for two months, at the end of which time scaly eruptions appeared. In other cases the eye-lid is the only part affected. A gentleman had a large ulcer, with dirty whitish surface, on the lining of the upper eye-lid. The character of the sore and the health of the patient, made Mr. Lawrence conclude that it was venereal, although he had not been affected with syphilis for a long time. The sore healed under the use of mercury and sarsap.

The lower lid may be completely destroyed by ulceration, and yet the deformity may not be conspicuous; the upper lid, when the eye is shut, descending over and covering the globe. No other ulcerative affection of the palpebræ can well be confounded with that now described. In the great majority of instances, the ulcers called cancerous, begin in the integument, and are for a long time confined to it, not reaching the ciliary margin or mucous surface, until the disease has made some progress. It has two stages, the tubercular and ulcerative. It begins with small, hard, and scarcely discolored tubercles in the skin. They exist many years before ulceration takes place—it then proceeds slowly, the edges of the ulcer being hard and tuberculated, and several years elapsing without any great progress—the ulcer is gleetty and has a scanty thin discharge, which forms an adherent scale on the surface. These cancerous ulcerations do not occur till the middle period of life and after it.—The history of the case and its progress, distinguishes the syphilitic ulceration.

*Treatment.* This may be summed up in a few words. Our author has tried mercury, found it to answer, and has been content. He has not experimented with sarsap. or other remedies. We pass to the cases detailed.

*Case 1. Indurated sore of the prepuce with phymosis—scaly eruption—large ulcer of the upper eye-lid.*

GEORGE VAUX, æt. 43, copper-plate printer, a free liver, applied to Mr. Lawrence in August, 1827, with the left upper eye-lid thickened elongated, and capable of being partially elevated only; its whole external surface covered by circular sores, nearly an inch in diameter, encroaching on the ciliary margin, and, having destroyed a part of the eye-lashes; the sore considerably raised, its base and margin being thickened and rather indurated; no excavation of the surface, which was covered by a dry, thin brownish scab. The sore and surrounding skin were of a reddish brown color, the eye not inflamed, nor the sight injured. There



was only a little smarting in the sore. Partial phymosis with copious yellow discharge—a hard lump felt on taking the prepuce between the finger and thumb, and an ulcer seen occupying the surface of the induration, on forcibly retracting the prepuce. On the forehead were some coppery discolorations, and the same in other parts, with a slightly scaly appearance. In March, he had contracted gonorrhea, and in a fortnight afterwards a sore appeared, which soon became obscured by phymosis. In June, the ulceration of the eye-lid commenced with a hard pimple on the margin of the lid amongst the lashes, which was lanced, soon got well, broke, and scabbed.

Under a poultice the scab came off, leaving a clean sore. On the 11th, he was put upon calomel and opium, and on the 19th, salivation had occurred. The hardness of the prepuce was diminished, the eruptions faded, the ulcer of the eye-lid cicatrizing. The mercury was taken less frequently. On the 26th, the mercury was discontinued. The sore had nearly cicatrized, but had reached the mucous membrane; the eruption had disappeared; the sore on the prepuce had healed, and the discharge was gone. As the ptyalism subsided, the new cicatrix excoriated, and on the 9th of September, the ulcer was again spreading.—Calomel and opium every night. On the 11th, it was ordered twice daily, and on the 14th, every 8 hours. The mouth was again made sore, and *pari passu*, cicatrization of the sore advanced. The healing was gradually accomplished, by extension of the new skin from the cutaneous margin of the ulcer to the mucous. On the 21st, the mercury was ordered twice daily, and on the 23d, it was discontinued, and on the 28th, the patient was dismissed with a sore mouth. In the following May, the thickening of the lid had disappeared entirely, the integument was natural, and the only mark left was a little deficiency, ciliary and corresponding want of eye-lashes. Soon after this, a tubercular eruption appeared on the scrotum, with superficial ulceration of the fauces, and imperfection of hearing. The lid continued well. The patient was put on blue pills.

*Case 2. Phagedenic ulcer of the upper eye-lid, without any other syphilitic symptoms—cured by mercury.*

LOUISA WILLIAMS, a fine healthy young woman, twenty-five years of age; was admitted in St. Bartholomew's hospital, under the care of Mr. Earle, on the 14th of May, 1829. A phagedenic ulcer occupied the whole surface of the right upper eye-lid, and extended to both canthi; it had destroyed the external canthus, and ciliary margin of the lid, and was extending along the conjunctival lining as well as externally. The surface of the ulcer

was covered with a dry, brownish scab; the margin was inflamed; acute pain was felt in the lid and over the brow. The patient asserted that she had never been affected with syphilis in any form, and referred the origin of the disease to a cold taken two weeks before, and followed by a sty, which broke, and gradually spread into a sore. When the scab had been removed by fomentation and poultice, lunar caustic was freely applied to the whole surface.

17th. The character of the sore is not changed; it continues very painful. Blue wash, Hydr. oxy. mur. gr.  $\frac{1}{4}$  in essent. sarsaparilla  $\frac{3}{4}$ ss. thrice daily.

21st. The ulceration is spreading; the surface is ash colored, particularly at the margin, with an admixture of bloody points and streaks. Undiluted nitric acid to the parts last mentioned.

I saw this patient on the 23d, with Mr. Earle, and found a large phagedenic ulcer of the lid, with inflamed margin, considerable and general inflammation of the conjunctiva, and great pain. I considered the disease decidedly syphilitic, and recommended that mercury should be employed so as to act speedily on the constitution. Two grains of calomel with one third of a grain of opium 4 hours.

26th. The mouth is sore; the character of the ulcer is changed, and its progress is stopped.

31st. Cicatrization has proceeded very rapidly, and the patient leaves the hospital to-day, quite well.

*Case 3. Ulceration of the eye-lids, and other syphilitic affections in the eyes of two children.*

SARAH COSTER, æt. 36, contracted the venereal disease from her husband about 10 years ago. She discovered her complaint only a few days before the birth of her first child. She was cured in about 7 months by mercury. 12 months afterwards a sore broke out on the right thigh; she was again salivated, and got well in three or four months. A discharge from the vagina alone, remained till 7 or 8 months ago, when the integuments over the head of the right tibia became inflamed and painful, and soon several small ulcers formed on the part. She was admitted under Mr. Earle, in July, 1827, and after a few weeks was discharged cured. In a fortnight the complaint broke out afresh, and gradually got worse till August 24th, when she was re-admitted under our author. She has now phagedenic syphilitic ulcerations on the leg, and pain in the tibia, particularly at night. *Pil. Hydr. gr. v. nocte maneat—Lot. Cal. c. Hydr. ozymur. Cat. panis.* On the 23d of September, she left the hospital of her own accord, the leg being nearly healed.

*Children of Sarah Coster.* Her first child was a fine healthy boy at birth. A few days afterwards, he had a severe attack of purulent ophthalmia in both eyes, which was cured in three weeks, and he has remained healthy.

Her second child, Sarah Coster, aged six, was also born healthy. A fortnight afterwards small healthy pimples broke out about the parts of generation, which were very red and sore. Patches of discoloration appeared about the face and head; the skin generally was rough; several of the nails separated, leaving a scaly surface; nostrils were choked up with a yellowish thick matter; the eye-lids became inflamed and were agglutinated during sleep. She took gray powders (*Hydr. c. creta*) for several months, which caused soreness of the mouth, but did not cure her. She was in the hospital under Mr. Earle, in July, with sores on the lips, cheeks, and eye-lids; the latter alone remained sore when she went out with her mother.

The third child, Henry Coster, aged four, was born healthy and continued so till 8 months ago, when the glands of the neck became enlarged and painful. He had also inflammation of the eyes, with great intolerance of light. He was cured in a few weeks and remained well for two months, when an eruption appeared over the whole body, with excoriation and foul ulceration about the anus and external parts of generation. These symptoms disappeared under the use of mild mercurial powders, when he was in the hospital with his mother in July. Soon after he left the hospital, the eyes became inflamed, and a few spots appeared on different parts of the body. He re-entered the hospital with his mother 24th August. The right upper eye-lid was inflamed and swollen, and on evertng it the mucous membrane was found to be occupied, in the whole extent of the tarsus, by syphilitic ulcer with elevated edge and foul surface. The left upper eye-lid also was inflamed and slightly swollen, but its mucous surface was not ulcerated. There were a few discolorations and scaly eruptions on the head and trunk. *Hydr. c. creta gr. v. o. n.—Ablut. tepid tarsi.* The mother left the hospital in September, and the child accompanied her perfectly cured.

On the 4th of October, Sarah Coster was re-admitted, with her two children, Sarah and Henry. Her leg had got worse after she left the house, and now presented the same character as before. Under a small dose of the oxymeriate in the dec. sarsp. c. She was well enough to be discharged on the 26th of Nov. The child, Sarah, had a small superficial ulceration about the mouth and on the mucous lining of the lips, and two rather large sores on the cheek near the lebulus of the ear. The lids were red and slightly ulcerated on their margins. *Mild aperient medicine occasionally—abrasion and simple applications.* The other child, Henry, had inflamed and slightly ulcerated eye-lids, with

a small ulcer at the back of the neck. *Hydr. c. creta*, gr. v. quot. In 8 or 10 days the mouth was affected, when the sores of the eye-lids healed. A large pustule formed both on boy and girl, on the end of the right forefinger, attended with considerable inflammation and pain. They left the hospital with the mother, on the 26th of November, and in March, the whole trio were reported sound.

This concludes Mr. Lawrence's work and our analysis. It is not our wont to indulge long summings up. If we like a book, we are careful to communicate its contents to the public; if we don't, we usually let it alone. This plan breeds fewest quarrels, and serves the interests of our readers very well. It is easy to indulge in sarcasm and invective, but it is not pleasant to witness their effects. By this simple rule, the profession may ascertain our opinion of the present work. If we had not thought it good, we should not have taken such pains in our account of it. In short, it is a book which we conscientiously recommend to the notice of every man, who would practice his profession with satisfaction to himself or advantage to his patient. Need we say more?

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ART. XXVIII. *Case of Reduction of the Hip Joint*, by doctor GEORGE W. DUFFIELD, of Annapolis, Jefferson county, state of Ohio; reported by doctor BENJAMIN DICKSON, of Steubenville, in the same state.

THIS luxation occurred about the 1st of October, 1830, and was reduced on the 15th of April, 1831, a period of 6½ months.

John Scott, aged 30, of Jefferson county, Ohio, of temperate habits, being at a raising, (building a log house, a sort of western frolic) about the 1st of October, 1830, was caught under a falling log, which passing over him, bruised the left side of the pelvis, crushed him under it, and dislocated the right os femoris backward, the head resting on the dorsum of the ilium, perhaps. A physician was called, with sufficient force he made extension and counter-extension until he and the assistants, thought they heard the bone snap into the acetabulum, and all believed it replaced.

The man was placed on the floor, on a bed, &c. &c. shortly after the bone slipped out apparently. It was again drawn in; this is said to have happened often. The attendant surgeon then applied a box, with a part extending to the axilla, kept

the limb fixed by a band round the ankle and foot, fastened to a staple in the floor, and continued this treatment for six weeks, at the end of this time, he informed his patient, on finding the limb imperfect, that there was fracture of the neck of the thigh bone.

In February, 1831, two other respectable and experienced surgeons were consulted, they agreed, in opinion, with the original attendant.

About two weeks after, (Feb. 26th, 1831) I was called to visit the patient, I found the limb about half an inch shorter than the other, the toes fell somewhat downwards, the foot and knee turned very little inwards, the limb rotated freely, but the great trochanter described a wider arch than in cases of fracture of the neck of the femur, either within or without, the capsular ligament.

I pronounced the case dislocation, disagreeing with those in attendance, a professional brother, who called accidentally, concurred in my opinion; on further examination, we were convinced that from efforts to reduce the bone, the head of the femur had been drawn into the ischiatic notch.

The man being informed, that his case was merely dislocation, insisted that efforts to reduce it should be employed, we endeavored to convince him, that new adhesions had taken place, that it was impossible, from lapse of time, that no reduction was on record, &c. &c. He remarked, "It is strange if you cannot use force enough to replace a bone that has been displaced by force, I would rather die in your hands than limp through life." After repeated solicitations pulleys were applied, bleeding, Tart. Ant., &c. &c. given, and efforts used to reduce, for about an hour without effect. He left town next day.

On the 15th April, 1831, Scott called on George W. Duffield, of Annapolis, Jefferson county, Ohio. I shall repeat nearly the doctor's words, "The man told me that I must try to put in his limb, that he would suffer any thing, he would rather die than remain lame through life. Having succeeded in two cases of long standing before, I told him I would undertake it on the 18th, and directed him to get drunk, and keep so until that time. previous to which I prepared a windlass, with which having extended and relaxed the muscles, until I believed contractility exhausted, I removed the apparatus, put the ankle into the hands of two strong men to extend the body being fixed, and placed one at the knee to press it outward; after several unsuccessful attempts, the patient drinking spirits freely nearly all the time, I placed a third person at the ankle; while I gave directions.— When the limb was sufficiently extended, I suddenly threw my

whole weight on the inside of the knee, pressing it outward, and the head of the bone slipped into the socket."

The gluteal muscles were considerably wasted, and have not yet recovered their energy, the man walks with a cane, the limb straight.

Doctor Duffield, says he has restored dislocations of the hip joint of long standing, in two other persons, viz: A. Eusley, aged 50, very intemperate, after four months—and William Campbell, aged 60, after two months.

## BIBLIOGRAPHICAL NOTICES.

ART. I. *Directions for making anatomical preparations, formed on the basis of Pole, Marjolin, and Breschet; and including the new method of Mr. Swan.* By USHER PARSONS, M. D. Professor of Anatomy and Surgery. Philadelphia, Carey and Lea, 1831.

THAT the study of anatomy is absolutely essential to every one who would cultivate the study of medicine, and especially surgery, has been so generally admitted, and so often repeated, that it is almost too trite a remark, to tell our readers that too high a value cannot be set upon this branch of medical science.

Happily for the profession, and for the general public, in this country, there is very little difficulty in procuring the necessary opportunity for dissection, at the several schools in our larger cities; but this can never remove the difficulty which must attend gentlemen who settle in country situations, where they, in most instances, are completely cut off from all possibility of perpetuating their anatomical knowledge by dissecting. Such being the fact, it follows, that every endeavor should be made to keep possession of such knowledge, as may have been acquired at college, at least; and, if possible improve upon it, as, in most instances, the time spent at colleges is too short, to enable the most sagacious and expert, to become well acquainted with a subject so intricate, and so extensive as is anatomy.

If it be said, the opportunity at medical colleges, is such as to afford the necessary opportunity, it cannot be said that the memory of those, in general, who enter the medical ranks, will enable them to retain recollections sufficiently clear, to enable them to perform surgical operations with safety to their patients, and honor to themselves; and, therefore, it may justly be insisted on, that since there is no reasonable opportunity for obtaining knowledge, by dissection in our medical colleges, that opportunity should be embraced, as far as it can be made to serve, in the perpetuation of such knowledge.

If then it be a fact, that anatomy can be studied to advantage in our colleges, and that we can perpetuate a considerable portion of that knowledge, by "making preparations," how vastly important must it be for us to conduct our studies and labors in the dissecting room, so as to obtain that which will enable us, at any future period of our lives, to revive our knowledge, by reference to our preparations. But this is not all, much knowledge will be gained at college by seeing the preparations as they are making, and also at future periods, while they are kept in a good state of

preservation, in the cabinet of some professor, or as the common property of some college.

In every point of view, the work is a desirable one, and we have no hesitation in saying, that, professor Parsons, by combining the labors of his predecessors, has produced a better work than any which preceded it, on the branch of knowledge of which it treats.

In looking into the introduction of the work before us, we are pleased to see some notice taken of the accidents which sometimes occur in the dissecting room, or at the opening of dead bodies, in more private examinations. Most of those who have treated of the risk which attends the business of the dissecting room, have confined their remarks to the injuries arising from slight wounds; our author has noticed an occurrence less common, but one which deserves our particular attention—we are told, that, “besides the diseases that may proceed from contagious affections of dead bodies, and which every anatomist will know how to avoid, there are two pertaining to a dissecting room that require some notice. One of them is derangement of the stomach, sometimes attended with fever, and which is probably occasioned by putrid exhalations, perhaps, by errors in diet and long exposure to cold, and is more common to ardent beginners; the other is extensive and severe inflammation from slight wounds of the fingers, and absorption of poison from the subject.” We have been led to believe that this affection of the stomach may arise from too much exposure to the foul air of a dissecting room, when the dissector is too long exposed. A gentleman of our acquaintance has suffered severe dyspepsia, with pain of stomach, attended with some interruption of vision, as *muscæ volitantes*, which, we have no doubt, is wholly owing to too much exposure to putrid exhalations, and close thinking.

Our author goes on to tell us that, *this* affection may be prevented, first, by proper attention to diet, never visiting nor remaining in the dissecting room with an empty stomach; by nutritious well seasoned food, and considerable exercise of body in the open air, and by obviating costiveness.” Suitable means are pointed out for removing the offensive effluvia as much as possible. We have thought proper thus far to notice this subject, as we are much inclined to believe that, many very worthy young men have fallen victims to too ardent a pursuit after anatomical knowledge. The late professor Wells, of the University of Maryland, professor Cooke, formerly of the same institution, and probably, the late doctor Godman, so favorably known for his zeal in anatomical studies, were all victims to this poison.



In noticing the injury arising from wounding the fingers in dissecting dead bodies, professor Parsons seems unequivocally to adopt the opinion of absorption. This being at variance with the opinion of Mr. Tyrell, and in some degree, with that of Sir A. Cooper, we shall quote so much from each, as will serve to show their respective opinions, and enable us to give our own opinion.

After noticing two kinds of injuries, our author says, that "one is attended with immediate danger, and is generally the consequence of examining a body a few hours after death; and proceeds with more certainty, from dissection of the bodies of persons who have died with inflammation of some of the serous membranes." If this really be a fact, that this more violent kind of inflammation is most apt to proceed from dissections of serous membranes, we must admit that the disease is owing to absorption of some peculiar secretion in these textures. But Sir A. Cooper tells us, that, "many of the gentlemen who come in from the country, for the purpose of following their professional studies at London hospitals, on their arrival in the autumn have but little constitutional irritability, and would suffer but in a trifling degree from severe injury; but in the spring, after having spent a considerable portion of their time in the dissecting room, and in the wards of the hospital, constitutional irritation is easily excited, and an injury which in the autumn would not have produced any inconvenience, creates excessive constitutional suffering, and is perhaps attended with fatal effects. It is on this account, that punctured wounds inflicted in the dissecting room, often produce such distressing effects; that it may in some instances, arise from the absorption of morbid matter, which usually produces the most aggravated form of constitutional irritation."

"That the distressing and often fatal effects arising from many of these cases, depends more frequently on the state of constitution, than on the absorption of a morbid poison, is evident from their rare occurrence in the early part of the season."

Sir Astley gives a case of dissection, in which three persons were injured in dissecting the same body, at the same time—one suffered considerably, another none at all, and the third narrowly escaped with his life, and did not recover his health for many months. Thus it appears upon the whole, that Sir A. speaks somewhat doubtfully on this subject, but Mr. Tyrell seems to entertain little or no doubt, as we may perceive by the following note on Cooper's remarks on this subject. This gentleman tells us that, "there is much difference of opinion in respect to the origin of constitutional irritation in those cases, whether it arises from the absorption of poison, or from a previous deranged state

of the constitution. Those who advocate the former opinion recommend the early application of escharotics, with a view to destroy any morbid matter introduced into the wound. As far as my own experience goes, I believe the latter opinion to be correct, and therefore strongly condemn the use of caustics; the employments of which (if this opinion be correct) instead of preventing mischief, augments it, by increasing local irritation."

Doctor Parsons recommends the application of caustic. The late doctor Godman, we are told, recommended immediate and full suction, by the mouth, of the parts injured. All agree that the caustic is only applicable before inflammation shall have come on.

We have been led to believe, that all the parties are to a certain extent correct in their opinions, i. e.—We believe that the poison, the presence of which we can scarcely doubt, will only produce its deleterious effects where there is much constitutional irritability. This being the case, it is as important that we avoid this state of the system, as the poison which may act upon it; and we are pleased to find, that while doctor Parsons does not bring this important point to view, in noticing poisoned wounds, he directs precautions for the regulation of the dissecting room, which if properly attended to, will do much to prevent constitutional irritation, but there is still room to wish he had more decidedly admonished the student, of the increased constitutional irritability, which is likely to arise, from too much confinement in the dissecting room, and, which will render him more liable to suffer from wounds towards the close of a session than at its beginning.

With proper precautionary measures in preventing the accumulation of concentrated putrid effluvia, dissecting as much as may be in the earlier part of the session, and adopting the precaution of sucking the wound, we think the deplorable accidents, which have sometimes happened, will almost never happen again.

The subject under consideration having been cultivated by several men of distinguished talents, commencing most conspicuously with Ruysh and Monro, the elder; and at a later period, with considerable zeal by several others, it is not to be expected that our author can lay claim to much originality, but, nevertheless, his work is not destitute of some merit on this score. The following quotation will show that he has invented a method of injecting the veins, which may be made greatly conducing towards making good preparations of the blood-vessels. It will be recollected that we have heretofore injected the veins from their branches into the trunks; the method of doctor Parsons' enables us to inject them like the arteries, from the trunks to the branches;

it is obvious that this is the only way in which the smaller veins of the extremities can be well injected. We have the following directions for "*injection of the arteries and veins of the hands and feet, with colored injection for dissection and corrosion*." These preparations have, I believe, never been made but by myself.—Quicksilver has long been used for filling such veins, by supporting a column of it for some days in an artery going to the hand or foot, and then twisting a cord round the wrist or ankle, and drying and planting the preparation in a pedestal of wax or plaster of Paris, with the fingers and toes upwards. Such a preparation exhibits the superficial vessels very beautifully, and especially the nourishing arteries in the roots of the nails. No colored injection has however, within my knowledge, been made of the veins of the fingers and toes, that will admit of their dissection. Proceed in this as in the foregoing case, more particularly described in section 56.\* When the arteries and veins are filled to overflowing, insert a pipe into one or two of the largest veins, and without tying the cord, let the part dry as soon as practicable; then shave a thin portion from the ends of the thumb and fingers or toes, and let the quicksilver run out from them, and

\* Section LVI—"for this purpose, a hand should be chosen the most emaciated, such as are generally found on aged persons, who have died of some lingering disease, and upon women rather than men. The fore arm should be separated by a transverse section, about three inches above the wrist, and the steel pipe fixed in the radial artery, with a ligature; then pour the quicksilver into the tube, and conduct the process as before described; as soon as they get filled, it will begin to flow out of the other vessels where the section is made; then let the arteries be first secured, taking hold of them with the dissecting forceps, whilst an assistant ties them with a ligature, and afterwards the veins in the same manner; if they cannot be perfectly stopped by this means, apply a string around the arm, a little below the incision, and tighten it in the manner of a common twisted tourniquet; but care should be taken not to make the compression with the cord so great as to obstruct the quicksilver from passing in; this may be easily regulated; for a descending column in the tube will overcome a much greater resistance than the ascending column in the vessels in the hand, on account of the greater perpendicular height of the former. When all the vessels are secured, the hand should be properly suspended in water with the tube and column of quicksilver, so as to continue the injection for a day or two, to give it full time to pass into the minute vessels; then remove the pipe, secure the artery by a ligature, and twist the cord tighter: the preparation is to remain in water, till putrefaction takes place, so that the cuticle may be easily peeled off, otherwise the hand will not dry; and if it should, with the cuticle on, it would tend in a great degree, to obscure the injected vessels. The preparation is then to be hung in the air, and, when dry should be carefully varnished, and fixed on a pedestal of plaster of Paris, secured from the dust by a glass cover." We are told that the vessels are first left open while the mercury is injected, for the purpose of pressing out coagula, &c. and then they must be tied as directed.

also from the pipes by inverting the part. Then inject the arterial pipes with coarse red injection, and the venous pipes with yellow, white, or blue, continuing the pressure till the injection appears at the end of the fingers. Pass a cord round the wrist and immerse the part in tepid water for a day or two, to restore softness, so as to admit of dissection; or if the object be to make a corroded preparation, macerate for some months, and wash away the soft parts by a stream of water directed upon it, as described in directions for making natural skeletons of small animals. The obstacle that has heretofore presented itself to injecting the hands and feet, is their valves. But here the quicksilver, by its upwards pressure, if continued till the valves are dried, throws them open, so that the injection flows contrary to the current of the blood, with perfect facility."

In a word, we consider the work of doctor Parson's one of much value, and hope it may tend to excite renewed attention to the interesting subject on which it treats.

We feel constrained by a sense of duty, to express as our opinion, that anatomy, medical jurisprudence, and chemistry, are much neglected by a great portion of the profession. While we readily acknowledge that much good may be done, and is done, by practitioners of slender acquirements, in remote situations, in which it is not to be expected that men of higher claims would remain, we know full well, that too many are content to be mere business practitioners. Too often surgical patients are left to suffer, because their physicians are too ignorant in anatomy to perform a simple operation—such being the fact, every attempt at rousing practitioners from this state of indifference, is commendable. We wish the attempt of doctor P. all success.

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ART. II. *Mittheillungen über die morgenländische Brechruhr von Adolf Rieck* doctor M. ERSTER BAND—Stuttgart bei Carl Hoffman, 1831.

THIS interesting little volume has lately been sent to us, by our friend doctor Alexander, of Brake, in the grand dukedom of Oldenburg, Germany. But in examining its contents, we find they have been almost wholly anticipated in this country, by publications in the *Edinburgh Medical and Surgical Journal*, the *Hamburg Journal*, and others. The last number of our *Journal* contains most of the information which has been presented by doctor Rieck—we are pleased however, to hear from our friend

and correspondent, that a second volume has been published by the same author, and, that, so soon as possession can be had, it will be forwarded to us for examination.

It is a melancholy fact, which we find announced by our author, that of the many thousands that were affected in Russia, and other parts of Europe, not less than one-third perished!

Doctor Riechë reminds us of the pestilence which was called the black death, and which overran a large portion of Asia, and Europe, in the middle of the 14th century. Of this dreadful disease, it is said 13 millions suffered in China alone. The cholera now prevailing, we are told, has overrun rather more than the half of Asia, and a considerable portion of Europe, in 13 years; at which period it first distinctly appeared as an epidemic in Asia. This forcibly reminds us of one of our boyish lessons:

‘Death at a distance we but slightly fear,  
He brings his terrors as he draws more near.’

While the cholera was confined to the heathen of the East, Christendom did not manifest any extraordinary commiseration, but now that it has entered some of the fairest cities of Europe, the most obdurate heart is made to sympathize, and to beseech the Judge and Lord of all the earth, to stay the pestilence.

We are also reminded in this work of the influenza, which overran the eastern part of Asia, and generally over Europe, and eventually found its way across the atlantic ocean to America, in the last century.

Doctor Alexander has obliged us with a friendly letter, which accompanied the book under notice—from it we make an extract or two—“You know surely by the newspapers, that the Asiatic cholera, (a French physician has termed it *triplanchnitis*, or disorder of the nerv. sympath. maxim.) was brought to Poland, (now lost,) by the Russian army, and that it went from thence to Prussia; its farthest extension to the west being now at Berlin.” We are led to conclude from the above statement, that doctor A. considers the cholera contagious, otherwise it could not have been carried to Poland by the Russian army: we have so fully treated on the question of contagion already, that we shall not add any thing at this time, other than to repeat that we differ entirely with those who believe this disease to be contagious.

We deem the following worthy of notice—“The best German popular writings concerning this plague are by Burdach, Simeon, Jr. and the medical colleges of Austria, and Prussia; the more professional by Lodar, Lichtenstadt, continuation till 1831; Scarle (an English medical gentleman, who treated it at Warsaw,) with a preface by Greafe, Hager (vedemecum containing the remedies

only.) Our friend has kindly promised to furnish future material for this Journal.

While noticing this work the following information has come to hand—we extract it from the Baltimore American. Several private letters give accounts of the existence of cholera at Hamburg—we have thought proper to notice the following. About the middle of October, it is said in a letter from Bremen, that “the Hamburg steamboat arrived in the river last evening and was ordered immediately to Headgate creek to perform quarantine.” [How pitiable that in this enlightened age, measures should be persisted in relation to cholera, contrary to common sense, and to all the facts connected with the disease. When we see these ill founded measures, so eagerly adopted, we are really provoked: to see men thus literally fighting against the wind is amazing.—Enough has transpired to convince every man, who is not too much frightened to possess his senses, that cholera is not contagious.]

The account continues—“the letters received by her (the steamboat) contain very little news, and dwell principally upon the cholera morbus, which manifested itself there (Hamburg) first on the 8th inst. (Oct.) a melancholy day for us also—up to the 14th, at noon, there had been 55 cases, of whom 2 recovered, 31 died, and 22 remained. Respectable families were under no apprehension, as the mortality was confined to the very worst description of *cannaille*. Business was however, temporarily suspended, and all foreign commerce stopped, as Hamburg’s neighbors, the Danes, Mechlenbergers, and Hanoverans, had shut them in by cordons, so that for three or four days they were without news from abroad, and unable to communicate with the country. It is expected there that Hanover will remove the cordon, as the general persuasion is, *that it will not prevent the spreading of the disorder*. At Altona, it has not yet appeared, *but as the communication was free, it will, no doubt, very soon make its appearance there also*. Every thing remains at Hamburg as usual, the churches, theatres, and coffee houses are open, and are as much frequented as ever; the promenades and drives remained thronged as usual, and the first effect of the news being promulgated having subsided, the people are now again unconcerned.”

“The medical men are by no means unanimous as to the disease itself—*doctores dividuntur* [why should they not differ? If they did not, science could never advance.] Altona, 13th of Oct.—Several cases of cholera have appeared here, *and every precaution has been taken to prevent the disease from spreading*.” [What absurdity, to talk of preventing the spreading of the atmosphere! Can there be stronger instances of human folly, than to see men buffetting the winds, after seeing the total inef.

ficiency of all precautionary measures, for two years past in Russia. Nothing but the terror which this indomitable disease carries with it, could serve to perpetuate the belief in its contagiousness.]

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ART. III. *Descriptio Ichthyosis Corneæ Congenitæ in virgine observatæ, tabulis tribulis lapidi incisus illustrata.* Bremen, CERN. HELV. SCHMIDT, M. D.

Description of a case of Congenital Ichthyosis Cornea, observed in a young girl, with three lithographic plates. By Chr. Helv. Schmidt, M. D. folio, pp. 15. Bremen, 1830.

[THE above work has been forwarded to us some months since, by our friend doctor Von Dem Burch, of Bremen, who has kindly promised to contribute hereafter, to the stock of knowledge which we are anxious to accumulate.]

The subject of this case was a female named Frances Kroone, who was born in Holland, near the Rhine. She was first seen by our author in the twenty-second year of her age—her face was entirely exempt from the disease. She was not unhand-some, and the complexion good—the skin soft and thin, yellowish eye-brows and eye-lashes, the teeth sound and handsome.

The region of the terno-cleido-mastoid muscles was the first affected with scurfy eruption—the disease did not affect the upper portions of the breast and neck, where the clothes did not cover the skin. There was a scanty covering of hair in the axillæ, but no eruption—very dense excrescences were to be seen on the areola of each mamma, arranged in concentric order—the inferior portion of the mamma, and the whole of the body, except a few spots on the back, and about the navel, were affected with the eruption: with simple ichthyosis. There were numerous dense scales of a line or two in extent, seen on the trunk, nates, feet, and arms; palms of the hands, and soles of the feet. On all of the extremities there were horny corpuscles blended with some hairs—the scales were of various forms, as round, square, and conical. The inner sides of the fingers and toes, where they lay together, were covered with horny scales. The lineaments of the hands and feet were so irregular, as to render any accurate description difficult. Some redness could be seen in the phalanges, although these parts were also covered with eruption—the scales were of extraordinary size, on the sole of the foot, some of them being nearly an inch long, and very

thick—some horny, others of an ivory color. The disease involved the nails of the fingers and toes. These resembled burnt horn, being yellowish—the nails of the toes particularly thick. The head partook in some measure of the disease. There was but little hair, and that partly colored, and seemed to have been preserved by great care.

The crusts were light yellow colored on scalp, but whitish, on the back, they had a dirty appearance; of a leaden hue on the inferior part of the abdomen: on the hands and feet, the haunches and legs, the crusts were of a dirty yellowish color.

The thorax was covered with a loose and peculiar skin—this in places resembled the rugæ usually seen at the elbow—at the gluteal muscles there was a number of circular folds. When attempts were made to pinch up the skin in the neck, many rugæ were formed. The skin was in some places particularly dry and harsh, and redder than in other places. Some of the more dense of the scales could be removed by the forceps, but others seemed to be rooted in the skin, bled, and gave pain.



## MEDICAL.

[*Spinal Irritation*.—The subject of spinal irritation is one of deep interest, and is becoming every day more so, from the fact of our daily observation, more and more convincing us, that disease of this part of the human machine, is alike interesting for its frequency, the neglect in which it has lain, and the share of importance it holds in pathology.

The Glasgow Journal for May, 1831, contains some cases related by Mr. Wark, of Dunlop, which serve to show that this is a subject well worth the attention of every physician.]

Case 1. April 3d, 1831.—J. H. Weaver, æt. 49, of shattered constitution, complains of dull pain at breast, with incessant cough, almost preventing sleep, copious muco-purulent expectoration, dyspnea, palpitation of heart, headach, and profuse nocturnal sweats; pulse 93, bowels confined. Has been ill four months, and treated with blisters to the breast, cough mixtures, without benefit. Dorsal vertebræ, about 6th, 7th, and 8th, are painful on pressure, pain stretching forward to breast, so acutely as to cause him to cry out. He had his bowels freely opened with purgative medicine, was confined to horizontal position, and a blister was applied over the pained part. 8th April. Blister after several applications discharges freely, but has produced a good deal of febrile excitement, which is subsiding. 12th. Blistered surface healed, and all the symptoms mitigated; pain in spine confined to one spot.

The blister repeated and kept open about 8 days, restored him to his usual health. This patient had been given up for consumption, and certainly he bore some marks of phthisis. It appears, however, to be merely chronic bronchitis combined with spinal irritation.

Case 2d. June 22d, 1831.—H. B. æt. 21, a woman of stout habit, has been subject to cough for several years; for 8 or 9 months has complained of pain in right side of chest, nearly constant, increased on inspiration and coughing; weight and oppression at breast, difficulty of breathing, dry convulsive cough, occasional headach, and dulness of spirits. Pulse 90, full, tongue moist, bowels natural, catamenia regular. Was bled to 12 ounces, and had a small blister applied to the breast with very little relief. July 3d, Symptoms worse. The 3d, 4th, and 5th, dorsal vertebræ are tender on pressure, particularly on right side, pain stretching acutely along the course of the intercostal nerves, to pained part inside of chest, causing dreadful convulsive coughing. The horizontal position was strictly enjoined, and 12 leeches ordered to pained part of the spine, which gave immediate relief; this was followed by a small blister kept open for a few days.

16th July. Expresses herself greatly relieved, cough and other symptoms nearly gone. Three leeches more completed the cure. About a year and a half afterwards, this girl being attacked with small pox, the same symptoma recurred, but subsided with the fever.

Case 34. June 5th, 1831.—Mrs. A. *æt.* 33, mother of six children, of delicate constitution, complained of intense pain of right side of head, which appears a little swollen, dry cough, pain and oppression at breast, little increased on deep inspiration, respiration hurried and laborious, pain and numbness about shoulders, stretching down arms, palpitations of heart, great debility, is fatigued on the slightest exertion, or even speaking; pulse 112, weak and irritable, bowels costive. Upper dorsal and lower cervical vertebræ are painful on pressure, most severe about 3d and 5th dorsal; pressure aggravating symptoms. Had a child about three months ago, and did not recover well; three weeks afterwards was affected with violent pain at breast, for which she was three times bled, and as often blistered, with but partial relief. Has consulted three medical men, who uniformly recommended blistering to the breast. Is much reduced in body, and considered by herself and friends to be consumptive. Three days previous to seeing her, she had come 50 miles by land and water, for the benefit of sea air, and had caught cold on her passage, to which she attributed the aggravation of her complaint. The day before this, had of her own accord, applied 12 leeches to the side of the head without benefit. She had two blue pills at bed time, followed in the morning by a full dose of salts and senna, which produced copious evacuations with abatement of headach and febrile symptoms. Was ordered 12 leeches to the dorsal vertebræ, to be followed by a blister. As she lived a considerable distance from me, it was 10 days before I again saw her. She was now so much better, that she was able to walk about, without fatigue; appetite and strength improving every day. Is still suckling her child; she says she has enjoyed much health since delivery, and describes her feeling after leeching, as if something were wanting about her breast; blistered surface has discharged, but is now healed. Pain in spine confined to between 3d and 4th dorsal vertebræ, and much easier. Nine leeches, and a small blister about the size of a crown piece kept open about 8 days, removed her whole train of symptoms. I saw her about four months afterwards with a slight return of the same complaint, which was easily cured by the same treatment. In this case, the horizontal position was enjoined a few days at first. In some cases the horizontal position is a *sine qua non* at the treatment; in others, it is by no means essential.

Case 4th. Aug. 26th, 1829.—I was called to Miss B. *æt.* 28, of delicate habit, who said she was ashamed to see me, as she could not tell what she had to complain of, only she felt weak, and her appetite was gone. Pulse 80, feeble, tongue moist, bowels natural, catamenia regular; stoops much, body reduced to a skeleton, so dull in spirits that she can scarcely be roused to the least exertion. On strict interrogation, admits having a slight feeling of weakness or weariness at breast. Upper dorsal vertebræ are tender on pressure, most about the 4th on the left side; right quite free from pain, pressure aggravating at breast. About 6 weeks ago, after assisting the maid a short time at her washing, her hand, and fore-arms became covered with a florid eruption, which soon disappeared, and was succeeded by a slight cough and uneasiness about the chest, which have since worn away. Was treated with a solution of tart. ant., bark, and other tonics, but without effect. Six leeches were ordered to pained part of spine, which produced immediate relief. She was now sensible that she had been laboring under more oppression at breast than she had been aware of. A small blister produced such constitutional derangement, and aggravated the symptoms so much, that I did not think of re-applying it. A few leeches were applied every second day for a while, making in all 31, which along with the horizontal position, greater part of the day, effected complete recovery. During the application of the leeches, she uniformly felt herself getting better, symptoms returning a little before next application, which gradually wore off towards the end. In less than 4 weeks her health and strength were completely restored.

Case 5. M. C. *æt.* 23, in summer, 1826, I attended this girl in a fever. She was advanced in the disease, and had been neglected before I saw her; was treated with local bleedings, blistering, emetics, purgatives, &c. as symptoms indicated. Her recovery was slow, and accompanied with a host of nervous and hysterical symptoms, which have continued more or less ever since.—About two years ago the abdomen getting enormously distended and communicating a doughy feel to the fingers, there was little reason to doubt that her bowels were loaded with seculent matter. A course of purgative medicines was ordered, which brought away a prodigious quantity of dark pitchy looking feces, mixed with mucous and slimy matter. The belly, however, continued nearly of the same size, but a little softer; the stools were less in quantity, but the same in appearance. Her strength getting exhausted, and her faith having failed her, I was obliged to abandon the practice. About 6 months after this she complained of pain in right hypochondrical region, aggravated on pressure, with frequent attacks of bilious vomiting; upon questioning her she admitted having pain about the shoulders, particularly on

right side. Several medical gentlemen saw her, and she was more than once blistered over the region of the liver, and salivated with mercury, to no purpose.

On the 18th of December, 1829, I was again called to see her. She had been getting worse some months, and is now confined to bed. Complaints of pain and giddiness of head, pain and numbness about the shoulders and arms, particularly right arm; dull pain over region of liver and abdomen, most acute about caput coli, occasionally stretching down thighs; is harassed with vomiting of acrid bile; eyes weak; speech has been hesitating for some months, is worse of late, stops often in the middle of words; abdomen reduced to natural size and feel; bowels open; pulse, 80, weak; menses have made their appearance all along, but a little irregularly. Says she is pretty easy while lying in the horizontal position, but all her symptoms are aggravated on getting up; gets so faintish in the erect position, that she is soon obliged to lie down. These symptoms led me to suspect the spine to be in fault. It was accordingly examined, and found tender throughout its whole extent; but particularly the cervical, lower dorsal, and middle of lumbar vertebræ; pressure, or the application of sponge dipped in hot water, on the lumbar vertebræ, gave pain, aggravating the pain in the abdomen, and particularly at caput coli; pains shooting down thighs, along the course of crural nerve. On passing the inferior dorsal, pain stretches forwards to the right hypochondriac region, which she described as distinctly the pain she has so long felt there, pressure on the inferior cervical produced a feeling of pain and numbness about shoulders, stretching down right arm, which has not had proper feeling for some months; but the most remarkable symptom of all is in the upper cervical; slight pressure there increases the shooting pains over the head, and causes a feeling of constriction about the throat, increasing the impediment of speech, and causing difficulty of respiration. When the pressure is increased, the pain becomes intolerable, the function of voice ceases, and the respiration is as completely stopped as if she were suspended by a rope around the neck. Whatever part of the spine was pressed on the pain was felt shooting along the course of the nerves, but most severe on the right side. The upper cervical and inferior dorsal, were the two points most severely affected, and from which I judged it not unlikely the pain might spread along the spine; these I resolved first to attack. Six leeches were applied to upper cervical, and the same number to the lower dorsal vertebræ. These were repeated with relief, and two small blisters were afterwards applied. In five days, when I again visited her, I found that the leeches had bled very freely, and had produced considerable debility; her face was pale and

blanched, and she could with difficulty turn in bed. The blistered surfaces discharged about a fortnight. It was a month before she gathered much strength: these symptoms, however, were mitigated, and she spoke more freely. By the beginning of April she was able to be out of bed the greater part of the day, spoke without hesitation, and was nearly free from former symptoms, but dorsal vertebræ, between ninth and tenth, were still a little tender. By the middle of June, she could take exercise out of doors, had a good appetite; and the spine was sound, except between ninth and tenth dorsal vertebræ, where there still was tenderness on pressure, shooting through to right side, in which she still felt some uneasiness. Considered herself in better health than at any time since attack of fever.

The horizontal position may have been a good adjunct here, but that it was essential to the cure does not appear, as she was obliged to keep it most of the time for nearly six weeks before the treatment commenced, notwithstanding which she became every day worse. That the origin of the nervous system was in fault, since fever, I doubt not, and that the timely detection and timely treatment might have saved her from nearly four years' suffering and misery, and preserved her constitution from a shock from which it can never fairly rally, I as little doubt. The pain in side and shoulders and vomiting of acrid bile, were certainly symptoms of inflammation of the liver, but it is plain it was merely suffering in function, from disease of its nerves, as the heart and stomach are often known to do from the same cause.

Case 6. A few weeks ago, I was called to see a young woman twenty-one years of age, whose prominent symptom was vomiting of every thing she took. She had pain in right hypochondriac region, increased on pressure, and pains about shoulders, shooting down right arm, which she describes as stitches. Had a child in the sixteenth year of her age, from which she dates the commencement of pain in side; pain in shoulders more recent; dyspepsia of some years' standing; but vomiting has only been distressing of late. Has been often bled and blistered for pain in side, (supposed to be hepatitis,) and sometimes with partial relief. Had consulted a medical practitioner a few days ago, who ordered a large blister to be applied over region of liver.—Ninth and tenth dorsal, and fourth, fifth, and sixth cervical vertebræ, are painful on pressure, the pain stretching to pained part in side and shoulders. Nine leeches were immediately applied to ninth and tenth dorsal vertebræ, and, in a few days, same number to inferior cervical. Eight days after this, she came a distance of about four miles, to show me how much improved she was. Vomiting gone; pain in the shoulders and side much better; lies in bed most easily on the right side, which she has not been able

to do since she had the child; pained parts in spine still a little tender. Leeches ordered to be re-applied.

I saw her about a week ago, stout in body and looking well. Says that she enjoys excellent health, to which she has been a stranger for more than five years. The horizontal position was not observed in this case.

I have met with only one case of this kind which defied remedial measures; the prominent symptom was tickling cough: time, however, effected the cure. Several cases have been relieved, although they could not be said to be cured. This disease sometimes accompanies consumption, yet in one case I had strong reason to believe that it roused up fatal tubercular phthisis.

That this class of complaints is seldom seen, except in the debilitated walks of life, appears to be unfounded. Any thing here in place of a town, scarcely deserves the name of a village. My practice is entirely in the country, in a place, too, famous for the salubrity of its air, and the healthiness of the inhabitants; yet in such a place spinal irritation holds no inconsiderable rank in the catalogue of human calamities.

As a stimulus to the younger candidates for medical eminence, I may be allowed to mention that, in the diagnosis and treatment of no other disease have I gained so much credit and confidence in families. I have cured several who had long been considered to be falling victims to consumption, gaunt and unrelenting destroyer of mankind. Restored to the arms of their families and friends from a long period of hopeless sufferings, they often knew not in what terms to express their gratitude.

[We evince, by our copying the above document, that we think favorably of the views and practice of Mr. Wark, but we cannot but express our surprise, at the readiness with which authors of discoveries can make every thing bend to suit their own views. What is a practitioner, free from prejudice, to think of a disease being reported, as serious in its nature, which, after a little other practice, could admit the following conclusion—*"three leeches more completed the cure!"* How much effect could three leeches have upon the spine of an adult?

Is it not surprising to see with what pompous parade our author tells us of curing serious disease, by means of a blister or two; or two or three very moderate leechings. But upon the whole, we are satisfied that the paper before us, together with the work of doctor Teale; the papers of doctor Mitchell of Philadelphia; and the treatise of doctor Tate, reviewed in the present volume, prove most clearly, that affections of the spine hold a very important place, among the maladies to which the human body is subject—nor should we forget the observations of doctor Armstrong, who calls our attention to irritation of the spine, in

typhus fever. Abating somewhat, then, for the zeal and anxiety manifested by the several authors just named, and some others who might be mentioned, we think ourselves bound to express our conviction, that this part of medical study has been much neglected, and that no man who is unacquainted with the subject, either by his own observations, or by his reading, can be qualified to do his patients justice.

*Chronic Dysentery, treated with sulphate of copper.*—The following is extracted from the London Medical Gazette, June, 1831. We are told by doctor Elliotson, that there was likewise presented a case of chronic dysentery, which exemplified the good effects of sulph. copper united with opium. This man like most of the patients that we take in here with chronic dysentery, I might say, perhaps, all, had been in a hot climate. He had several stools a day, and when he came in they were bloody. I began the sulph. copper in doses of half a grain, three times a day, with half a grain of opium. These were gradually increased; but while I was employing them, there was no reason whatever for not having recourse to any antiphlogistic measures that might appear necessary. He complained of tenderness in the situation of the transverse arch of the colon, and, on that account, leeches were applied there from time to time. I think it impossible to say, as I have already mentioned, in chronic dysentery and chronic diarrhea, whether there is ulceration or not; if, however, there be ulceration, that is no reason why a patient should not get well. Intestines are continually opened where cicatrices are seen, and sometimes very considerable ones too. You will find this mentioned by doctor Lotham, in his work on diseases of the penitentiary; you will find it mentioned by Andral. You will find that Mr. Howship mentions a case of cicatrization to a very great extent. I have frequently seen intestines in a state of ulceration at some parts, and of cicatrization at others, showing that ulcers had healed; therefore, whether there is chronic merely in these cases, or whether there is ulceration in addition, there is no reason whatever for not persevering with our measures; the one case may be cured like the other. Chronic inflammation will destroy life equally with ulceration. I have seen people sink under violent purgings, which have continued for some months, where there was not the slightest ulceration; and, again, I have seen persons who have lived for many months with their intestines ulcerated to very great extent. I never saw a greater mass of ulceration than in the case I showed you last Tuesday, and that man had unquestionably been in that state for many months. The condition of the feces is exceedingly various; sometimes they are bloody,

sometimes they are not bloody at all. The man, to whose case I have just alluded, never had a speck of blood in his feces; whereas, on the other hand, I have sometimes seen in mere inflammation a great quantity of blood. Then, with respect to pus, there never was the appearance of pus in that man's secretion; on the other hand, in diarrhea, you will frequently observe pus, although there is no ulceration. In that man's large intestines, the whole mass of feces was of the healthiest description.

"The present case was useful as showing a fact which is seen continually, respecting doses of sulph. copper; namely, that the difference of half a grain three times a day may make all the difference in the benefit. This man took at least two grains, three times a day, with a certain benefit: but, not mending so fast as could be wished, the dose was increased to half a grain more; the result of which was that he immediately began to improve rapidly. I believe I have mentioned that it could be given in a solid form, and not on an empty stomach; and that it is best combined with opium, at least in the first instance. I have frequently given it with two or three grains of opium, and at last have gradually diminished to the opium till I left this off altogether. As, however, besides being an astringent, it is acrid, it is best to obviate the effects of its acrimony by opium. Of course where it is given with opium, you cannot tell what are the effects of the sulph. of copper, and what the effects of the opium, because the opium itself has a strong tendency to check the diarrhea. It is only from the comparison of a number of cases treated with opium and sulph. copper with cases where opium only was employed, and from cases where the opium has been greatly diminished and omitted, while the sulph. copper was increased and continued, that the fact can be ascertained; and by comparing cases where opium was given first alone, and then the sulph. copper added. It is only by these observations that its use can be proved. Of its good effects alone, I have no doubt; but knowing the advantage of opium, I considered it my duty to give a patient all the benefit that medicine will allow, and therefore I unite them together, provided the opium do not disagree.

There is a case in the same ward at this moment, of chronic dysentery, which was very bad, but is now doing exceedingly well, and which also illustrates the benefit arising from the addition of half a grain only of the sulph. copper. It has occurred that a young man who, I believe, was at St. Helena was attacked with this disease. His stools continued bloody; when he came in he had a great many in the day, and has been ill a year and a half; he had ten stools, sometimes fifteen. There was a tenderness of the abdomen, and, therefore, giving astringents without attention to the inflammatory state, would have been wrong. Astringents,



for the diarrhea were indicated, but still there was so much tenderness that I thought it right to apply leeches to the abdomen, and he had twenty applied from the second to the fifteenth, and then I began to give him half a grain of opium, and half a grain of sulph. copper, which was gradually increased till I came to two grains of each; under which he continued improving, but not so rapidly as I desired. On the addition, however, of half a grain, he instantly began to mend very considerably. The last report is, that, he had only one motion in the course of the twenty-four hours, and that of a healthy appearance. His stools before were liquid, and more or less bloody, but now they are generally healthy, and rarely show any blood.

*On the use of Gold in Syphilis.*—On the 16th of May, Mr. Magendie made a very favorable report to the Royal Academy of Sciences, at Paris, on a work by M. Legrand, on this subject. The author establishes the fact, that gold acts favorably on the digestive organs, without weakening the patient, and at the same time produces an exhilaration of the spirits. There are four methods in which it may be advantageously administered. 1. Metallic gold reduced to a state of extreme division. 2. Oxide or chloride with potash. 3. Oxide of gold with tin. 4. Perchloride of gold and sodium. Of these, the last is by far the most powerful. It is applied by mixing three parts of the perchloride of gold and sodium with nine parts of any inert powder, and administering by way of friction on the tongue, in doses, varying according to circumstances, from 1-30 to 1-3 of a grain per day. As much as a grain has been given with safety, but this requires care. This is the least expensive of all the preparations of gold. Next to this in strength, is the oxide precipitated by lime, then the oxide precipitated by potash, and, lastly, the gold in a state of division, which is the mildest, and at the same time the surest, under which it is administered. It is obtained by dissolving one part of perchloride of gold in 15 parts of distilled water, and then pour into it, little by little, a solution of 4 parts of proto-sulphate of iron, in 15 parts of distilled water, until there is no longer any precipitate produced. The precipitates are then collected and preserved for use. This is administered by friction on the tongue, in doses from one quarter of a grain to 4 grains per day. It may also be administered internally in a spoonful of any kind of conserve. The oxides are employed in the same manner, but in doses of one-tenth of a grain to one and a half or two grains in a day. They are more frequently given internally, either in pills of six grains of oxide with sixty grains of extract of mezereon, or any other extract of a milder character, divided into sixty pills, of which from one to ten are taken fasting, in a gradually

increasing ratio, or in lozenges made of six grains of the oxide, with one ounce of powdered white sugar, divided into sixty tablets, to be taken in the same manner. The work, which makes a tolerably thick octavo volume, contains very copious illustrations of the subject, and also of the danger of the use of mercury, of which the examples are striking, and well reported. M. Magendie, in conclusion, bestowed high praise on the assiduity of M. Legrand, and considered that he had established the beneficial nature of this remedy, although in administering it great attention must be paid to regulate the dose according to the strength and constitution of the patient. The work has been published some years since, but has only lately attracted the notice of the academy.—*N. A. Med. and Phys. Jour.*

[Some 16 or 17 years ago, the late doctor S. L. Mitchell, of New York, sent the present writer an inaugural dissertation, by doctor Francis, on this subject; but it, as far as we know, never excited particular attention.]

*Case of puerperal convulsions.*—August 10th, 1825, Mrs. P. was delivered favorably, of her first child; some hemorrhage had preceded labor. Soon after delivery, she was seized with violent convulsions, and had four between dark and eleven o'clock. Sinapisms were directed by doctor Page, whose patient she was, and one and a half grs. of opium, and two grains assafet., every hour had been once repeated. At this time, breathing stertorous; patient insensible; constant tossing; pulse frequent and corded. Advised loss of blood, notwithstanding she had been copiously bled in the morning. Took about 24 ounces; she became pale; pulse much sunken, but she laid more quiet. Gave 50 drops laudanum, and two tea spoonfuls tinct. assaf. every two hours; applied large blister to scalp; and the doctor had previously applied two on her ankles. She passed a tolerable night, and was sometimes able to give sensible answers to questions. Had a slight convulsion at 6 o'clock this morning. At half past 8 o'clock this morning, pulse pretty tense—patient sleeps constantly, but can be roused, and then gives correct answers to questions put to her. Advise continuance of the assafet. and omission of the opium. Use chicken water.

11th, in the afternoon, some reaction as manifested by hot skin, and pretty tense pulse. Ten grains of calomel, and repeat the dose in three hours—to be aided, if necessary, by injections. Evening, has taken two doses of calomel; bowels have been tolerably acted on. Her breathing is more free, but she continues to sleep constantly, though she can be roused easily, and gives rational answers. There is still some reaction. Blisters acted well. Directed ten grs. calomel every six hours, till free evacu-

ations are procured, and to take nothing but barley, or chicken water, during the night.

12th.—Came fully to her understanding in the night—she was rational, but could not recollect having been delivered—pulse a good deal excited—disposed to lie quiet. Afternoon, she is still more feverish, notwithstanding that magnesia, which she took to aid the calomel, acted freely. Enjoined abstinence, and small frequent doses of vin. ant. and sp. nitre dulc.

13th.—Patient improving, but there is still evidence of irritation some where, the pulse being tense and frequent; bowels have been free. Directed magn. and effervescing mixture—afterwards, continuance of sp. nitr. and vin. ant.

14th.—Aspect of the case improved, but there is still some tension of the pulse, with increased frequency, slight pain of the head. Cannot decide whether there be some congestion of some important viscus, to which the jerking full pulse is owing, or whether it be owing to the loss of blood, which has been considerable. The bowels being imperfectly open, advised dose ol. ricini.

From this time, our patient began to convalesce, and soon regained perfect health, in the care of our friend doctor Page. We think this case, which was a very violent one, and the spasms protracted, serves to show the value of free bloodletting in puerperal convulsions. Same time, while we thus approve of copious bleeding under suitable circumstances, we also approve of the conjoined use of opium, provided there be not too much plethora of habit.

*Case of Amaurosis*—July 21st, 1825.—Mr. H. from Virginia, affected with amaurosis, of two or three years standing, aged nearly 21; very corpulent. He states that about 12 years since, he underwent a mercurial course of treatment. His parents prohibited him from drinking cold water so rigidly, and for such length of time, that he for some time lost all desire for water.—After some time, he allayed his thirst at a spring from which time his desire for water returned, and increased rapidly to an inordinate degree. *For several years, the quantity of water which he drank, was from four to six gallons every 24 hours.* Of late, he has curbed his appetite, and *drinks only about three gallons a day.* Shortly after drinking a tumbler of water, his most common draught, (sometimes one and a half,) he passes nearly an equal quantity of urine. He lives almost entirely on animal food, and is, in short, a free and full liver, with the exception of his not using ardent spirits, nor wine. He takes almost no exercise; and is uncommonly corpulent for a person of his age. Digestion good, sleep pretty good, lies down much during the day, since

his vision is impaired. Several years ago, his right eye became weak, and his vision much impaired; this wore off again. Since last attack, totally blind in that eye, with the other he has a very slight perception of large objects; pupils much dilated, and lifeless.

22d. Health good as usual; he has concluded to remain in town. R Aloes, ʒss.

Tart. ant. gr. ij.

Calom. gr. x.

P. rhei. ʒi. Pil. xxxij. Two to be taken morning and evening.

23d. He began this evening with his pills.

24th. Pill taken last night had but little effect; continue as before directed. Directed reduction of his water, and a milk diet, with bread and vegetables—no meat, except a very small quantity of poultry at dinner.

25th. Took his pills according to directions—they operated without sickening him, and he thinks he sees somewhat better.

26th. Sight slightly improved, as he imagines. Pills operate pretty freely.

27th. Nothing remarkable. R Pil. ut antea xxxij. to be used as before.

28th. Felt sick during the night. Indulges his appetite too much—has omitted his pills.

29th. Nothing new—medicine has been resumed, and operates well.

31st. Improving in health, and he thinks his vision slightly better

Aug. 1st. Nothing remarkable; continue medicine as before.

2d. As yesterday.

3d. As yesterday.

4th. Proceed as usual.

5th. Nothing new.

6th. R. Submur. hydr. ʒi. Pil. vj. two to be taken at bed time every night.

8th. The calomel operated violently, and has left him languid, but less feverish than I have seen him. Directed him to omit his medicine for the present, and refrain from exercise.

12th. There is little or no alteration in his eyes, but his bodily health is considerably improved. He has become impatient, and resolved on going home. R. Aloes soc. pulv. rhei. jalap. submur. hydr. ʒi. tart. ant. gr. ii. Pil. no. lxiv. Four of these pills to be taken daily; and if they do not produce at least three stools daily, take one or two more occasionally. Once a week take 10 grains calomel. After getting home, apply antimonial ointment to the back of the neck, and sides of the thorax.

Continue the low diet, chiefly bread and milk. Must not exceed three pints of water daily, for his common drink.

There was no further direct communication with this patient, but we learnt some months afterwards, that he continued through the summer pretty much as when he left the city. In the fall season, he was overtaken by the bilious fever of the season, and died.

We notice this case principally with a view of mentioning the extraordinary fact, of his drinking such almost incredible quantities of water. This gentleman exhibited evidence of the extremest debility, compatible with tolerable feelings of good health; and this debility seemed aliketo invade his corporeal and mental energies—all which we believe was fairly attributable to the enervating habit of excessive drink of cold water. The amaurosis was probably owing to the same cause.

*Case of Cholera*—Aug. 15th, 1825, Martin Simpson's son, three years old, cholera from eating fruit to excess. Has been vomiting and purging very violently during the night, and is much exhausted.

R Tinct. opii. qt xxx.

Carb. sodæ ℥ij.

Aq. font. ℥ij.

Mix. Tea spoonful every 15 minutes, till relieved. Three or four doses relieved him completely. We mention this case because, we consider the above formula one of the most efficacious remedies for common cholera, for all ages; and we have sanguine hopes it will be found a valuable antidote in cases of Russian cholera. We can truly say, that we have, in the course of a few years, relieved a very great number of patients by this simple prescription. Sometimes we omit the opium, where there is much fever; but often fever of ordinary force will not present any objection to the very small quantity of laudanum which the mixture contains. We sometimes vary the formula to suit the taste, or caprice of the stomach, by the addition of a small quantity of ol. peppermint, spearmint, cinnamon, caraway, or sassafr. Mostly, however, the simple mixture will be found most grateful to the very irritable stomach, in cases of cholera.

*Case of retention of the Placenta*.—Aug. 14, 1825, Mrs. R—miscarried on Thursday last, (this being Tuesday,) owing to a violent fright. The afterbirth remained three days, attended with soreness of the epigastrium. The lochial discharge has been regular since the expulsion of the placenta, but it has now become mucous. Complains of pain after drinking, and there is great sensibility to pressure over the stomach. Has taken some

stimulant drops, by the advice of a physician, who has since declined attendance—they apparently disagreed with her very much. She has taken a dose of magnesia, this morning, which has acted. The skin is moist and cool, pulse soft, but weak; there is pain of the stomach, which is violent and constant. Advised 12 leeches over the part in pain—avoid all solid food—drink toast water, and chicken water.

R Carb. Sodæ ℥ij

Aq. font. ℥ij

Ol. anisi gt. iv.

Tinct. opii. gt. L. misce.

Two tea spoonfuls every half hour till easier: also

R Submur. Hydr. gr. x. To be taken after third dose of the saline mixture.

17th. Found the patient more tranquil yesterday evening—pulse more firm, skin moist. Medicine had not purged her—advised repetition of magnesia. No fever this morning, less pain; can now change her position, which she could not do before—medicine operated tolerably; extremely sore in epigastrium, but not such constant pain. Directed table spoonful of castor oil every third hour, till it operates freely—no solid food—hot stupes to the abdomen.

18th. Somewhat better; rested well during part of the night—had some pain towards morning, which abated on taking of the soda mixture. Bowels not open during the night—still feels pain after swallowing even liquids however bland. Advised dose of castor oil, bland drinks, and avoid solid food.

19th. Considerably better; no pain; abdomen not distorted; can bear moderate pressure—oil operated yesterday copiously—avoid solid food, and take a small dose castor oil.

20th. Still improving; very little fever or pain; complains of unrefreshing sleep. Bowels not freely open. Directed 10 drops antimonial wine every two hours.

25th. Patient having been convalescent, has relapsed last night; complains of severe pain, and has taken a dose ol. ricini.

R Carb. Sodæ ℥ss

Tinct. Opii. gt. xxxv.

Aq. Puræ ℥ij. Misce. Spoonful occasionally.

26th. As yesterday; gave dose calomel.

27th. Suffered severe pain last night; calomel operated well, and she is much better this morning. Has been taking the alkaline mixture—advised dose ol. ricini this morning.

30th. Has had a violent chill to-day, and is succeeded this evening by high fever.

R. Carb. Sodæ ℥ij

Aq. Puræ ℥ij. To be used as an effervescing mixture, with lemon juice.

31st. Had a good deal of fever last night; this morning pulse feeble, skin cool; complains of extreme exhaustion—advised one gr. quinine, in mixture, every two hours, during remissions, and effervescing draughts during the fever.

Sept. 2d. Still doing well, but is very weak. Continue the mixture; and, keep the bowels open, with tinct. rhubarb, there being some slowness of the bowels.

5th. Patient fairly convalescent—has been taking her quinine too sparingly—advised its continuance. From this time our patient speedily recovered her health.

We have been reminded, in looking over this case, of the fact, which we have frequently had occasion to observe, that retention of the placenta, is sure to be attended with unpleasant, and often dangerous symptoms. The prevailing tendency is a sort of low action, greatly resembling what the old writers called putrid fever. No practitioner aware of this fact, in its real extent, will ever suffer the placenta to remain, beyond a reasonable time.

*Case of Pneumonia, attended with constipation of unusual obstinacy.*—Feb. 12th, 1825, we have made the following entry:—Negro in Jail—protracted case of pneumonia, with constipation of very uncommon obstinacy. Has long been under treatment, and required enemata as often as it was necessary to open his bowels, since all purgatives were either entirely inefficient or thrown up by vomiting. At this time his bowels are still very slow, but they can be moved by strong doses of jalap and crem. tart. His cough is still troublesome, but he no longer spits blood, which he did for some time.

R. Mucil. Gum. Arab. ℥ij. Tinct. opii. gt. lx.

Crem. tart. ℥i. Aq. Puræ ℥iv. Table spoonful three times a day.

26th. This man has been gradually recovering, but has required large doses of jalap and calomel. To-day, he exposed himself by going in the cold to the privy—he complains much of his head and breast; pulse feeble.

R. Sp. nitri ℥ss

Vin. ant. ℥ss

Tinct. opii. gt. lx.

Aq. Puræ ℥iv. Table spoonful to be taken every three hours.

March 8th. This patient has been again convalescent, till to-day, I find him very ill—bowels obstinately cæstive—pulse weak, pain in the breast and head.

R. Camphor, jalap, aloes, and tart. ant. a. gr. ij. calomel gr. x. Pil. xxiv.. Two to be given every three hours.

16th. Continues very weak with slight fever, and some pain in his breast; constipation still continues—continue the same pills.

This man's disease became protracted, and he lay for several weeks in a prostrated state, having no considerable fever, but showing almost a total indifference to every thing around, as well food and drink, as almost every thing else. He almost never spoke, and could only be roused up by pretty rough handling. For several weeks he never had a natural passage, nor could any be procured by the strongest cathartics, although the stomach would retain them, for two, three, or four days—injections finally lost their effects, and the only way in which a passage could be procured, was to introduce into the rectum, a suppository of tobacco, or brown hard soap. By first giving an injection, and afterwards using the soap, a free passage could thus be procured, as often as was thought necessary. After struggling for several weeks, in a very deplorable condition, he began to revive, and by keeping his bowels open, he eventually recovered entirely.

This is not the only case in which we have succeeded in keeping the bowels open by suppositories of tobacco or soap, when injections were ineffectually used. We still well recollect a case, (our notes are not at hand) of a respectable person who was affected with obstinate colic, and to whom seven injections were administered, none of which would come away. Observing that the sphincter acted forcibly on the injection pipe, we thought of relaxing the muscle by means of a tobacco suppository, made by greasing a piece of spun tobacco with lard—in this way, we afforded immediate relief. We may have occasion to notice this case hereafter, together with others, of an obstinate kind of colic which prevailed epidemically, some years since, in Adams county, Penn.

#### SURGICAL.

*Remarks on "Gangrenous Ulcer" of the Mouth, by MICHAEL A. FINLEY, M. D. of Williamsport, Maryland.*—The term "Gangranopsis" has been applied by Dr. Jackson of Northumberland, Pa. to a modification of disease which attacks the lip, mouth, cheek, and sometimes the throat. It is appropriate and perhaps as expressive of the nature of the complaint as the terms "Cancrum oris," "corroding ulcer," &c. which have been applied by various writers. The disease has been graphically delineated by the respectable writer alluded to, in the 39th No. of the "Medi-  
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cal Recorder," with a number of interesting cases, most of which, however, had a fatal termination.

The symptoms progress rapidly, and the most hideous and disgusting ravages of the part affected take place, unless arrested by the most prompt and energetic treatment. The foreign writers who have noticed the disease, place their reliance on various remedies which are inefficient; particularly in such cases as have fallen under my observation. Such have invariably been attended with great debility, and an irritative fever, with a quick pulse, rather conveying the impression of inflammatory action on slight pressure; but on more deliberate examination, the artery is very compressible, and the pulsations can be readily arrested. This flush of the skin, or apparent increased temperature with the state of pulse which I have endeavoured to describe, is a very important feature and characteristic of the disease. To an observer who does not closely investigate all the symptoms, the impression derived from the pulse and skin may lead to depletory measures, which will inevitably hasten the fatal termination.

It is also liable to be confounded with aphteous affections of the mouth, which readily yield to detergent gargles, and attention to regulate the *prima via*. This mistake can only however occur in the incipient stage, as the symptoms soon unequivocally indicate a state of disease calculated to alarm the practitioner, and call forth all his scientific resources.

When the lip is the affected part, a small dark spot resembling coagulated blood, is observed on the interior surface, connected with a shrinking, or abrasion of that part of the gums which had previously covered the roots of the opposite teeth. An unpleasant fetor is observable, which resembles that which invariably attends pyalism; an examination of the gums, however, except that part which has been mentioned, shews nothing unusual, or that indicates salivation, in the ordinary acceptation of the term, to have been induced. In the course of 24 hours, a dark spot can be traced on the exterior of the lip, corresponding in extent with that observed in the interior. There is now a constant dribbling of saliva from the affected part, with a shining, hard, and glossy swelling, without the occurrence of pain; but with a restlessness and uneasiness, which cannot be readily defined or traced by the sufferer. In a few days, if not counteracted, the lip is destroyed, and the disease extends to the cheek, the nose, and the bones of the face, leaving its symmetry most hideously impaired, so as to render life not desirable under the existence of such deformity.

It is, however, a disease which but seldom occurs, and as far as my observation has extended, most usually presents itself during the prevalence of bilious epidemics, and evidently requires

a peculiar diathesis or idiosyncrasy, to develop such a formidable train of symptoms. Children, youth, and adults, are indiscriminately attacked, but it is more liable to occur in children, and in the lower walks of life, where from obvious causes it is more likely to be destructive; and I have been inclined to believe that the least taint of "scrofula" in the system, has a tendency to eliminate the disease in its most aggravated forms.—When the cheek is affected, it is confined to one side, and rarely shows a disposition to extend to the other, except in a neglected case where no erosion of some important blood vessel has promptly terminated the life of the unfortunate patient. As soon as the lining membrane of the cheek is destroyed, it advances rapidly through the muscles and integuments—and as the gangrene extends, the fetor becomes almost intolerable. The offensive matter in this stage of the disease, and indeed from the commencement, particularly when the throat or cheek is affected, will be constantly introduced into the stomach, and tend to produce a troublesome diarrhœa.

I have also remarked, that it usually occurs in the advanced stage of remitting fever; when the system is much reduced, and even in some cases where there was reason to suppose convalescence had commenced. Under these circumstances, the mercurial practice had been pursued, but not to the extent required, by some of the more violent forms of bilious disease, which prevail in the middle and southern sections of our country. In two or three cases occurring in children, and under my own observation, but one dose of calomel had been administered, either as an anthelmintic, or to remove some slight appearance of disease. Having in all the cases which have been presented to my notice, ascertained, that mercury in some form had been administered; and from the fetor so evidently mercurial, which attends them, although no appearance of the gums resembling pytalism occurred. I could not resist, however reluctantly, the inference that the disease was the result of the influence of this active medicinal agent.

This was a very unpleasant reflection, as it was calculated to excite alarm, and dispose to the exhibition of calomel with less confidence, knowing that this very unpleasant train of symptoms might be induced much to the distress of families, and chagrin of the practitioner. But a series of experiments, leading to a successful and satisfactory result in the treatment of such cases, soon obviated this difficulty, and induced me to administer the remedy with the usual confidence, where the symptoms required it. Attributing the disease, therefore, to the influence of cal. the fact appeared to be obvious, but it was not so easy to explain the *modus operandi*. Why should it attack the lining membrane of

the mouth, and not exhibit the usual determination to the gums and salivary glands? Sometimes the idea occurred, that there was something in the quality of the calomel, or in its chemical preparation, which rendered it liable to act as a poison when it came in contact with these particular parts. The insulated fact remained, that in certain conditions of the system, when reduced by fever, mercury, instead of producing the usual constitutional effects, acted locally; and if the tone of the vessels of the mouth was much impaired, prostrated their vital energies, and produced gangrene; but what constitutes this peculiar state of the system, which predisposes to such a result, is still involved in inexplicable obscurity.

The first case of the disease which occurred in my practice, was in a boy of 14 years of age, in November, 1817; from which was derived an invaluable and important lesson. He had labored under remitting fever, of a mild type, and had progressed in the disease about 10 days; the usual symptoms of fever had been removed by the ordinary mode of treatment, the tongue had become clean, the pulse soft—the evacuations had resumed their healthy color; and symptoms of convalescence, as I supposed, were developed, and the hope was indulged, that he would soon recover. Most of the family were sick, and confined in the same room, and not much attention had been observed as to personal cleanliness, or comfort. Under these circumstances, a swelling occurred of the lower lip, with the appearance already adverted to, of coagulated blood attached to the inner surface, and a constant dribbling of saliva. Not suspecting the true nature of the disease, the first day of the appearance of these symptoms, and having my attention engaged with other members of the family, a gargle was ordered, and some opening medicine. The next day, to my great astonishment, a dark spot appeared on the external surface of the lip, with some increase of swelling. Satisfied, from this state of the case, that gangrene had commenced, and should be arrested by the most decisive measures; and, convinced that in this new aspect of disease, all minor circumstances should be disregarded. The bark was ordered to be given in alcohol, in such doses as the stomach would bear. A blister to the lip and cheek, to excite reaction, with a liberal and stimulating diet. Tinct. opii. in doses of 10 or 12 drops to every other dose of the bark, to prevent it passing off by the bowels.—The blister was dressed with basilicon, moistened with turpentine, to excite the cutaneous vessels. Decoction of carrots was used, to obviate the fetor, and strict attention to cleanliness was enjoined. Having the patient convenient to my residence, I visited him frequently, and often administered the medicine myself. He was ordered to use brandy or spirits freely, and such

was the state of the system, that he could use it in the most liberal manner, without affecting the head, as under ordinary circumstances. In about three days, the line of separation was distinctly marked; and in about the same period, the iphacelated part of the lip was removed, and granulations of a healthy character were formed. Having lost part of the lip, there was reason to apprehend that permanent and considerable deformity would be the result; but the growth of the granulations was rapid, and I had the pleasure to see in the course of a few months, that the symmetry of the face was in a great measure restored.

I have said that when convinced in the case of the existence of gangrene, all minor circumstances should be disregarded, in endeavouring to arrest this formidable state of disease. The pulse in the first case appeared excited and feverish, though compressible, and would have induced me to deplete by the bowels, if my judgment had not been convinced by the state of the mouth, that the preservation of his life depended on arresting the progress of the gangrene, by the most powerful tonics and stimulants. Although the case was novel to me, the treatment was influenced by a recurrence to principles which should guide the practitioner who attends to the prominent symptoms and state of the system, without regard to the name of the disease. The affected part, attacked by gangrene, was at some distance from the centre of circulation, and it required powerful stimulants to excite that degree of healthy action in the extreme vessels essential to recovery.

In 1823, when the bilious epidemic prevailed so extensively through the valley of the Potomac, affecting alternately different sections of the country, which, heretofore, by their locality, had been exempted: several cases occurred of gangrænopsis, in which the throat or cheek was affected. The same constitutional treatment was pursued, and with the same satisfactory result; and the efficacy of the tonic and stimulating plan, was demonstrated. This practice was soon adopted by other practitioners, and the disease was encountered with confidence in the power of the remedial measures which a more enlarged experience was calculated to produce. During this period, two or three cases occurred in children, when the disease had made considerable progress before medical aid was called, and which terminated fatally. In every such instance, the result could be partially attributed to the ignorance, obstinacy and neglect of the parents or nurses, and did not, in the slightest degree, impair confidence in the mode of treatment alluded to in the successful cases.

The last case of this disease which occurred to me, was in August, 1827; he was of middle age, and of intemperate habits; being engaged in securing the harvest, and had an opportunity

of indulging freely in the use of ardent spirits—he complained of indisposition, and took a dose of cal. and jal.; it operated well, but in a few days he complained of the gums on one side being sore, which he considered to be scurvy. This impression also occurring to a young practitioner whom he consulted, he was ordered a gargle of tinc. myrrh and borax, and did not consult me for some days. When examined, the gangrenous ulcer of the cheek was distinctly exhibited. The nature of the disease was explained to him, and he was ordered to take the cinchon. in spirits, with liberal diet, and epispastics to the cheek. In the course of treatment, the sulph. quinine, in large doses of 5 grains every second or third hour, was substituted for the bark, and a liberal use of alcohol was directed—the blister was dressed as usual, with basilicon and turpentine. The case was rendered more protracted and obstinate, by the difficulty in such an intemperate habit, of exciting action by the most copious libations of brandy, or diffusible stimulants; it was also rendered more critical by a copious hemorrhage from the mouth, which lasted, at intervals, for 24 hours; much of the offensive matter was swallowed, and distressed the stomach and bowels. His case was pronounced hopeless by his friends and attendants, and it required the utmost address and perseverance on my part, to induce them to continue the remedies. The result was favorable, and presented the most triumphant evidence of the resources of science in this formidable disease, and confirmed me in my confidence of the correctness of the principles which had guided the treatment.

A few hours before the line of separation was observed between the sound and diseased parts, the external dressings were composed of dossils of lint, saturated with "British oil." This was found to be a very convenient dressing, and abated the fetor better than any previous application. The diluted nitric acid, decoction of oak bark, &c. had been used without much advantage. The rapid cleaning of the ulcer, and the recovery of the patient, was attributed by the numerous visitors attracted by the case, to the "oil," as the ulcer improved on the first dressing. The constitutional impression, however, had been produced by the internal remedies, and the "oil" was a good auxiliary to cleanse the surface, and promoted more rapid growth in the granulations.

I had been at some loss in determining what external application would be most convenient and efficacious in controlling the intolerable fetor. The use of the "British oil," had been resorted to in a child laboring under the disease, empirically, in which it was said to have checked the progress of the ulcer. The result of its trial in the case which has been related, was such as to

induce me to give it the decided preference to all other external remedies.

The liberal use of alcohol, is of much importance, and judging from my own observation, it may be used to great extent, without affecting the head, or producing other than the most beneficial effects. The cinchon. or s. quinine, must be used in augmented doses, and the more liberal and highly seasoned the diet, the more useful in exciting the languid system to more healthy action. It should, however, be reduced or discontinued, when the healthy granulations are formed, and, of course, the purpose accomplished. Some importance also attaches to the application of blisters, as their efficacy in arresting gangrene, is so well attested in our medical records.

The dread of fever, or too much excitement existing in the system in such cases, has deterred practitioners from the tonic and stimulating course. But in the numerous cases which I have had an opportunity of observing, there is not, in my humble opinion, the slightest foundation for such an apprehension. The gangrene is the prominent symptom, and should command the attention, and if this is arrested, by establishing a more healthy action, all the minor symptoms will be obviated, in the most satisfactory manner.

[The foregoing interesting paper from our friend doctor Finley, came to hand too late for insertion in the original department.]

May 6th, 1825, Miss W. a girl about 10 years of age, severely burned four years since. Contractions of the skin have formed both in the length and lateral course of the neck, and so as to form a cord-like projection of the skin, and also to draw down the chin in a very unpleasant manner, towards the clavicle. On the anterior part of the throat, the skin was tucked over, so as to form a loop into which one could pass a finger nearly an inch; but, on its outer side, it was closed, and prevented the finger from passing through the loop.

This loop was the most difficult part of the case to account for. In the course of the operation, I found the loop was occasioned by the contraction of the platysma myoides muscle; and it was not until I had completely divided that muscle, that the chin was entirely relieved from its confinement.

I commenced the operation, by cutting out a considerable portion of the most prominent part of the contracted skin: this was found to give but little relief. The knife next was passed through the loop; this afforded some relief, but the head was very imperfectly loosened from its downward confinement. By pinching up the contracted parts, and feeling carefully, I was convinced there

was no artery of any magnitude, nor, indeed, could any artery have been expected which would be dangerous to wound, except the carotid, and this lay too deep. Having by a good deal of dissection, (which was prolonged by the unruly conduct of the patient,) divided the skin across the neck, perhaps three inches; and loosened up all the contracted integuments, I finished by cautiously dividing the platysma myoides. The wound was dressed with lint, and the chin being placed in its proper position, a piece of paste-board was bound around the neck, to keep her from leaning to the affected side. Her mouth had been drawn to the right side, on which the contraction existed.

May 9th. Doing well—has rested pretty well—fever moderate—head completely liberated. Removed dressings, and applied lint, with a little basilicon, there being no simple ointment at hand.

May 11th. Sore looks well—discharges good pus copiously; and requires dressing twice a day; dressed with lint, which was covered with basilicon spread on a rag.

May 13th. Doing well—sore looks well; but the granulations seem to rise up too luxuriantly. Advised wash of strong decoction of oak bark; and dress with dry lint.

May 16th. Improving well—ulcer begins to heal pretty fast. Continue same dressing once a day.

May 19th. Doing well, ulcer heals pretty rapidly. Continue same dressings

May 22nd. Wound healing very favorably.

May 26th. Doing well, wound lessens rapidly. Patient now left in the care of my friend, doctor Elbert.

July 4th. Dr. Elbert being absent, the aunt continued to dress, and overlooked the fact of the skin's contracting into a ridge, so as to bring the chin rapidly towards the sternum. When this was discovered, they foolishly abandoned all hopes of the case, and omitted sending for me. After the return of doctor E., he commenced the use of caustic, and having opened the wound considerably, the contraction has been much relieved. Advised continuance of the caustic.

The friends becoming discouraged and neglectful, the persevering efforts of doctor Elbert, to regain what had been lost during his absence, proved unavailing; but ultimately the patient recovered, with but a slight improvement in her condition.—This case, with several others of a slighter kind, have convinced me, that parts contracted permanently, by burns, can seldom be restored to their proper condition. The phenomenon which we so often see, in the wonderful contraction of wounds and diminution of cicatrices, from which so much advantage is often ob-

swelled, comes in, unfortunately, in cases of deformity with contraction of the skin, to our hindrance.

In the case before us, while the ulcer continued open, the parts concerned remained as free, as they were immediately after the operation, but no sooner was there a clear manifestation of healing, than it could be seen, that the deformity was about to be renewed. Still we must not overlook the fact, that much was lost by the imperfect dressings, during the absence of the attending physician, and the neglect of friends to acquaint the surgeon with the fact of the doctor's absence, or the falling off of the case. At no other period, could this occurrence have had so injurious a bearing on the case, as at the time it took place, seeing that this was the period of the most rapid cicatrization, and consequently of greatest contraction; and by the contraction it was, that the parts might be, and were distorted.

*Case of wound of the leg, in which a considerable artery was probably wounded, but which healed without ligature to the artery.*

Feb. 10th, 1825—Jacob Miller's grandson, a young man, had the misfortune, while cutting the tails off hides in the tannery, to stick a very narrow bladed knife into the inside of the calf of his leg. The wound passed just behind the soleus muscle, and may have wounded either the posterior tibial, or peroneal artery. There was a copious flow of blood at the time of receiving the wound; it did not continue long, but soon abated, and nearly ceased of itself. It has bled two or three times since the wound was made, and there is considerable tumefaction of the leg, but there is no bleeding at the time of my visit. Admonished the patient to be watchful, lest he might suffer from sudden hemorrhage. Applied simple dressings.

11th. The leg is less swelled, but there has been a good deal of grumous blood weeping out during the night. No return of the hemorrhage. I worked the probe in the wound, and by pressing with one hand on the opposite side of the leg, I caused a considerable quantity of grumous blood to pass out. Advised to lay a soft piece of linen rag over the puncture, and cover the leg with cool bran poultice with vinegar. Press out the extravasated blood occasionally. If florid blood should be discharged, stop up the puncture with the end of a finger, and send for doctor Mackenzie.

12th. No particular change in the wound—there is not much pain, but the swelling has increased somewhat; some grumous blood continues to pass out—no red blood. Continue the poultice.

13th. There is still a considerable discharge of grumous blood,



but the swelling and pain have abated. Continue the same dressings.

15th. The swelling of the leg has nearly disappeared, the discharge of dark blood has ceased, and a semi-purulent matter flows from the wound—but little pain or soreness. Advised by all means to remain at rest a few days longer, under the apprehension that an artery had been wounded, and was as yet but imperfectly closed, so that there would be great danger if he should happen to be overtaken with hemorrhage in the street.

This patient soon recovered the perfect use of his limb, under the care of my friend, doctor J. P. Mackenzie.

#### OPHTHALMOLOGY.

*Complete Inversion of the Eyelids.*—When the inversion of the eyelid is moderate, the excision of a portion of the external integument, or the application of the sulphuric acid, so as to produce ulceration of the skin of the palpebræ, which when it heals produces contraction and draws the margin of the eyelids outwards, generally affords relief. But in the more inveterate cases, it has usually been the practice to have recourse to the excision of the margin of the tarsal cartilage as recommended by Mr. Saunders. This operation, however, always produces more or less deformity; and although it removes the perpetual irritation caused by the cilia, is sometimes followed by a thickening of the conjunctiva which excites considerable irritation of the eye. It very often produces a constant epiphora, and the delicate margins of the tarsi being removed, the functions of the lids are in a considerable degree destroyed, while the elliptical cartilaginous borders, which give that firmness, regularity, and graceful curve to the palpebræ, are mutilated and disfigured.

Some years ago Mr. Crampton of Dublin, proposed another operation, which has since been improved, and strongly recommended by Mr. Guthrie; and in the *London Medical Gazette*, for January last, Mr. Stratford relates three cases, successfully treated by this method. That the reader may the more readily understand this operation, we shall select the most important details of one of these cases. A gentleman, when young, had been subject to frequent attacks of conjunctival inflammation. When seen by Mr. Stratford, he had complete inversion of both lower lids to such an extent, that not only the cilia, but even the skin of the lid was brought in apposition with the conjunctiva covering the globe.

"The cilia were folded up, or bent in such a manner as to bring them in contact with the conjunctiva, where it forms the reflection from the ball to the lid, and consequently was in some degree, removed from the corneal portion of the membrane.

The whole lid appeared to be very considerably elongated, so that when the cilia were returned to their proper situation, it formed several considerable folds, while an evident stricture was formed by the contraction of the tarsal cartilage, that made it difficult to retain the lid in its proper situation, especially if any involuntary contraction of the orbicular muscle was excited. The patient complained that the inversion of the cilia "caused very considerable pain, prevented his application to study, and indeed, made his life miserable." An operation having been determined upon, it was commenced, "by introducing one limb of a pair of scissors, (with a blunt point) to the bottom of the fold, formed by the reflection of the conjunctiva, as near the external angle of the lids as possible, and holding them in a perfectly perpendicular direction, cut through the skin, tarsal cartilage, and membrana conjunctiva. This evidently afforded considerable latitude of motion to the lid, and being repeated at the inner angle of the inverted lid, (taking great care to avoid the punctum lachrymale and horizontal canal,) obviously freed the part from that constriction which was a cause of the complaint. The cilia now, in a very considerable degree, returned to their natural situation. I next seized a large fold of the skin of the lid, and cut off a considerable portion of it. This was included between the two previous perpendicular incisions: after the bleedings had ceased, I passed an armed needle through the tarsal cartilage in three situations; the two first close to the perpendicular incisions, the last in the centre between these. I then fixed the ligatures to them by means of adhesive plasters, so as completely to evert the lid. A little lint, besmeared with simple ointment, and a compress and bandage were now applied, and the patient enjoined not to disturb the plasters, &c. Very little irritation was excited by the operation; the wound was dressed daily, and the ligatures were firmly retained in their situation. About the fourth day, adhesion had evidently taken place between the cut surfaces of the horizontal wound, while the perpendicular incisions were granulating. The ligatures came away about the ninth day, when the everted lid soon returned to its natural situation, without the least inversion of the cilia. At first there appeared some disposition to permanent eversion of the lid, but this entirely subsided as the thickening of the cellular tissue of the lid was absorbed. The patient now freely expresses the very sensible relief, which he experiences from the previous continual annoyance, which he purchased at the expense of a little pain, but certainly without any of the personal deformity, which the excision of the tarsal margins must have produced.

*Ossification of Vitreous Humor.*—Among the organs of sense, the eye alone presents examples of ossification. The choroid membrane is the part which most frequently undergoes this change: in cataract the degree of induration is scarcely ever such as to warrant the appellation of bone. Haller asserts that he has seen the retina ossified, or at least an ossific lamina occupying the place of this membrane; and the same statement is made by Morgagni, Scarpa, Magendie and Manoury.

No author, however, has recorded a genuine case of ossification of the vitreous humor. Lobstein, it is true, in his pathological anatomy, says, that ossifications of the hyaloid membrane are asserted to have occurred; but he cites no authority, and appears to doubt the fact. Scarpa says the hyaloid is occasionally opaque, and thicker than natural; and Morgagni speaks of it as sometimes cartilaginous. Beer mentions having found earthy matter in the interior of the vitreous humor, and occupying its place.

M. Kuhn, however, has lately met with a well marked case of ossification of the vitreous humor, the preparation of which is deposited in the museum at Strasbourg. It occurred in a man aged seventy, who had died of inflammation of the stomach. The left eye was healthy, but the right eye was in the following state:—The globe had sensibly diminished in size—it had lost its spherical figure, and presented the appearance of four furrows or wrinkles, which corresponded with the insertion of the recti muscles: it was heavy, and felt hard. When a horizontal incision was made from behind forwards, the Sclerotic was found to be very thick, particularly at its posterior part, near the entrance of the optic nerve; the instrument was soon arrested by a hard body, filling the whole space of the eyeball behind the crystalline lens; and consequently occupying the place of the vitreous humor. Immediately within the sclerotic was the choroid membrane distinct, and rather thicker than natural. The retina was unchanged. The solid body within was marked by the same depression, which had been observed externally: it was of a pale white color, and was internally of a cellular texture, like the cancelli of the long bones. The crystalline was indurated and of a yellowish white color; the optic nerve was wasted.—*La Clinique.*

#### PATHOLOGY.

[We copy the following case from the Philadelphia Journal of the Medical Sciences:]

*Case of general emphysema, produced by combustible gas.*—The following case was presented to the Royal Academy of Medi-

cine, by M. Bailly. A man twenty-five years of age, was admitted in the hospital Cochin, on the fifteenth day of typhus fever. He complained of violent pain in the left thigh, which, as well as the scrotum, was swelled; and in his delirium he talked of having been bitten in the knee by a dog; but no information to that effect could be procured after a diligent inquiry. He died the day after his admission; and in eight hours the body was examined.

Blood had issued from the nose, and from the surface of the skin of the thighs and head, where the cuticle had been stripped. The whole body was emphysematous, but especially the left leg. This was twice its natural size, had a brownish violet color, and was extensively covered with black and white phlyctenæ; and a reddish serosity, mixed with air bubbles, issued from the black ones. This limb resounded when struck, and crepitated when handled. The belly was much distended with gases. Face and temples were livid; and when the skin there was divided, a great deal of reddish black blood issued. The brain and lungs did not present any unnatural appearance; the heart was pale and empty; the intestines presented the usual organic derangements observed in typhus, (enlargement, induration, and ulceration of the glands of Peyer and Brunner.) Bubbles of air filled the vessels of the pia mater and left saphena vein. The lymphatic glands of the mesentery were enlarged, and contained a gas which took fire at a candle, and exploded. The same phenomenon was witnessed after scarifications of the legs, thighs, and scrotum. A puncture having been made in the belly, the gas which issued took fire also, and formed a flame blue at the base, white at the apex, and which burned for some time. The combustion likewise extended to the edge of the opening made with the trocar; and the edges became black and were consumed, so that the aperture was rendered of twice its previous diameter. The gas contained in the subcutaneous cellular tissue was inflammable like that in other parts.

M. Bailly considers that this evolution of inflammable gas was not a phenomenon which occurred after death only, and puts the question, whether the case throws any light on the spontaneous combustion of the human body.—*Archives Général*, Jan. 1831.

*Case of hydrothorax in a child 15 months old.*—M. Lichenstädt relates in a late No. of Heckers Annalen, the case of a child 15 months of age, and well formed, who, without any appreciable cause, was suddenly attacked with oppression of the chest, and great anxiety; strong and irregular throbbing of the heart; inability to remain in the horizontal position. The little

patient died in a few hours. Upon dissection, both sides of the chest were filled with a limpid fluid; there was also a similar effusion within the pericardium. Neither the pleura nor the pericardium presented any signs of inflammation. Nothing remarkable was observed in any other part of the body.

*Fatal hæmatemesis.*—M. Richard has met with a case of hæmatemesis, in a young man addicted, since infancy, to drinking spirituous liquor, which proved speedily fatal. On examination, an ulcer was found near the cardiac orifice of the stomach, at the base of which, the coronary artery of that organ was observed, opened by erosion, and from which, of course, the blood had flowed.—*Rev. Med.* June, 1831.

*Diffused gangrene of the lungs.*—Of this disease, Laennec met with but two instances, and therefore supposes it to be of rarer occurrence than it would seem to be from the researches of subsequent pathologists. During the past year, M. Bergeon communicated to the Anatomical Society of Paris, three cases of it. Five or six cases of circumscribed gangrene of the same organs, have also been related to that Society.

M. Chuveilhier considers as one of the pathognomonic signs of this disease, the expectoration; the extremely fetid sputa, sometimes mixed with blood, supervening shortly after symptoms of acute pneumonia.—*Id.*

*Remarkable case of hydrothorax.*—Some years since, a middle aged man died of dropsy of the thorax, in the Baltimore hospital. Upon dissection, about six quarts of serum were found lodged in the left side—the thorax on that side was somewhat distended, but less than one would have expected. But the most remarkable part of the case was the thickened state of the pleura, as well that of the costæ as of the lungs, and the whole inner surface of the sack, thus formed, had a ragged appearance, as if roughly scraped; and there were, here and there, points of pus or condensed lymph. Such had been the distension, and pressure in all directions, that the upper end of the pleura, on the left side, was elongated, condensed, thickened, and pushed up between the muscles, so as to rise considerably above the clavicle on that side. It had a conical shape, and its form as well defined as the finger of a common kid-skin glove, but rather thicker.

This case is well calculated to give us a proper knowledge of the structure of the pleura, at its upper end—and shows that the notion of its terminating at the upper rib, is erroneous. It is in the dropsical subject, only, that we can obtain a correct view of the formation of the upper end of the pleura. In such subject,

we shall find this membrane terminating in a conical point above the clavicle.

*Case of suppuration of the pericardium.*—In the winter 1829, a male subject, about middle life, was brought into the Washington Medical College of Baltimore, for dissection. No regular account of the disease of which he died, could be obtained, but it was understood his complaint had somewhat resembled consumption of the lungs.

Dissection disclosed a very great enlargement of the pericardium, but the lungs were not tuberculous, nor was there any remarkable lesion of them. Upon opening the pericardium, it was seen, that more than a quart of pus occupied the interior of the sack. The membrane was greatly thickened, and presented a ragged surface internally, looking as if rudely scraped with some blunt edged instrument, till there were superficial lacerations and shreds, raised; and here and there, small string-like pieces of condensed lymph covered the surface of the membrane. The matter was a mixture of pus and hardened lymph, in small lumps, and thread-like pieces—giving somewhat the appearance of pus, in which some coarse fibrous powder had been mixed.

This case is interesting as an instance of suppurative inflammation of a serous membrane. It is not to be expected that one person out of a hundred, would survive such ravages as were seen in this case. But nothing is, perhaps, better known, than that inflammation of the pericardium leads to the effusion of lymph; nevertheless, we have seen instances of inflammation of the heart, in which neither of these terminations took place. We have seen several cases of effusion of serum and lymph; and we are here reminded of the case mentioned by Mr. John Hunter, of an ox's heart, where there was added to the pericardium, a layer of lymph an inch thick.

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#### MISCELLANY.

*We have thought proper to present our readers with the following document, which was directed to the board of health of Baltimore. This city has been much improved as regards bilious diseases, and believing, as we do, this improvement is owing to late improvements, we think the facts detailed, may be useful to other cities, or individuals.*

BALTIMORE, SEPTEMBER 26th, 1829.

Gentlemen—I have, with attention, examined the pamphlet accompanying the letter addressed to your Board, by the chairman of the Board of Health of Charleston, relating to the subject of regulations for the promotion of health in that city.

As you purpose, in complying with the request of the authorities of Charleston, to forward "a copy of the laws and rules governing your board," there will be no necessity for my entering into any special notice of our ordinances, &c. I have deemed it proper to draw up a brief sketch of the general principles or views, by which the medical advisers have been influenced so far as they were concerned in the establishment of our present efficient organization in the health department.

By turning our attention to the report of the committee of health in Charleston, it appears that the views of that committee are exclusively *topical*. It therefore seems proper, that I confine my remarks principally to that part of the subject, but I have nevertheless thought proper, to present a passing notice of our quarantine.

The medical agency to which I alluded above, as being connected with the board of health in this city, was brought into operation, in 1820, owing to a very severe visitation of yellow fever in the year preceding. My predecessor, in the office of consulting physician, put into operation proper views for improving our city—these being approved by the Mayor and City Council, the necessary ordinances were enacted, for carrying into effect the present salutary regulations. In the year 1821, I succeeded doctor Owen, in the office of consulting physician, and therefore at a period when the desired improvements were but partially accomplished. Differing in no essential particular from that gentleman, I continued my efforts, with the board of health, from year to year, in offering to the proper authorities such views as grew out of our reflection and experience. Believing that all the efficient regulations were pretty much the offspring of our united efforts, I shall speak of the whole as one joint concern, solicitous only that it may be understood, what were the governing motives of my predecessor and myself.\*

\* Since writing the above, we fell in with a publication, made during the term of doctor Owen, by the Mayor of Baltimore, (Edward Johnson, Esq.). By this publication we learn, that doctor Jennings, of this city, pointed out to the city authorities, more clearly, the requisite improvements that were necessary to prevent the generation of miasmatic poison, than has been done by any one before or since. The Mayor having addressed a circular to the physicians of Baltimore, requesting information on the subject of causes, and the means for their removal, or prevention, several of the most respectable physicians stated their views at some length; among the rest, doctor Jennings, and we have found, by turning to that gentleman's paper, that he has distinctly pointed out all the more important measures adopted by doctor Owen, and which were continued by doctor Jameson, the present incumbent, in the office of consulting physician, for this city. A publication so highly creditable to our friend, we think, ought not, by any means, to go unnoticed. We may have occasion hereafter to notice the paper of this gentleman more fully.

The grand object in view, in our efforts at improvement, has been to convert the whole of the city, as far as practicable, into one solid dry *surface*. We were impelled to this measure by the consideration, that all parties in the profession believe in the necessity of the presence of water, in the production of fever.—Contagionists and anti-contagionists, agree that heat and moisture are essential to the extension of epidemical fevers—and a third party in Europe and in this country, of no inconsiderable reputation, contend that it is water, and the sudden changes of temperature of the air alone, which give rise to our autumnal epidemics. We need not enter into any discussion on this part of our subject, but it seems proper to remark, that it is well known, that, with an exception or two in our southern latitudes, no malignant yellow fever epidemic ever prevailed, except upon grounds closely bordering on salt water, and upon alluvial grounds—how vastly important then, that every measure be employed to prevent the decomposition of vegetables and other filth, wet with salt water, where the whole is liable to be exposed to a temperature of the atmosphere, amounting to 80 degrees of Fahrenheit's thermometer.

The accomplishment of this object, may be effected by attention to measures of a two-fold nature—first, those for placing the streets, lots, buildings, and wharves in a proper condition; and secondly, those for securing a continuance of measures of purification—among the first, we may notice

The covering of all alluvial soil, cellars in such soil, lots, streets, &c. with sand, or rather clean clay or sound earth in which clay abounds. To effect this object in its fullest extent, the surface should be taken off, so far as may be easily practicable, in all the situations we have pointed out before the filling up is done, observing, especially where filth has been deposited or shavings of wood, &c. to have such material carefully removed—then a covering of good material is made with especial regard to securing such inclinations of surface as will serve to convey away the rain water, which may fall upon it. It has also been a leading object, to obtain a filling up of cellars on made or wet soil, with good sand or earth, covering this with a coating of pitch, and upon this a bed of good lime and sand mortar, on which is placed a pavement of hard burned brick. Many ware-houses have been thus improved; and we believe, to the great satisfaction of the occupiers of such premises.

Especial regard has been paid to keeping the docks of proper depth, to prevent the exposure of mud to the sun, during low water, and to cleaning away the *wash* of the streets, by an annual cleaning of the wharves, even in deep water.

It has also been deemed important to prevent any repairs or



the making of wooden facings to the docks, substituting as far as circumstances will admit, stone walling.

Another matter which has been deemed of primary importance is the removal of every thing in the form of a sewer—much has been done towards their total rejection—those few that remain are inconsiderable, and will no doubt at an early day be entirely removed. The greater part of the site on which Baltimore is erected, affords convenient facilities for conveying away all the water which falls upon its surface; and an essential improvement has lately been introduced of paving all streets and alleys, with a middle elevation, so that the water shall find its way on both sides, where curb-stone of good height are placed to bind both the foot-ways of brick and the bed of the streets, which are paved with hard stone.

It has also been deemed necessary to cause all privies to be made water-tight in their vaults, in made or low grounds.

And, lastly, much has been done the last few years, in filling up all grounds or lots covered with shallow water, as far as practicable, and where that cannot be effected, these lots are materially improved, by covering their margins with sound gravel or earth, so as to obtain a pretty bold shore.

The city has incurred a pretty heavy expenditure in the prosecution of measures for obtaining the state of things above pointed out, by new grading and paving where it was found necessary; but already are the advantages so conspicuously evident, that every one is sensible of their importance.

Among the measures to be pointed out under the second head, are those calculated to continue a suitable condition of our city, in relation to nuisances or remote causes of disease, may be noticed the following:

That lots, yards, cellars, &c. be kept free from filth, and from getting out of repair, so that breaches may not exist, and prevent the rain water from passing off, whereby it descends into the ground, or into adjacent cellars or privies.

That all offensive manufactories and slaughtering houses be kept without the thickly settled parts of the town.

That strict attention be paid to the vaults of privies, and that the removal of their contents be done as much as practicable in the cooler seasons.

That the streets and alleys, together with private and public yards, be kept clean from such articles, as will produce a nuisance, by creating unpleasant odors—Collecting all such material, so as to prevent any disgusting accumulation into heaps, and speedily removing it without the city—to be converted into manure.

That all lumber, tavern or other yards, be kept reasonably clean from their usual material of accumulation, and that wood and lumber, be elevated in piling it away, on logs or scantling, so as to allow free ventilation underneath.

That no damaged articles be suffered to remain in the city, either in the streets, lots, warehouses, or on board of coasting or other vessels; but that whenever found, they be carried without the limits of the city.

By suffering swine to run at large during the warm months with a view to their consuming much of the offalls of kitchens, &c.

The realization of the general condition, which I have pointed out, has been in a rapid state of progression, for several years past, and there is no room to doubt, but our present efficient police will, ere long, fully realize every thing which can be attained connected with this important subject.

On the subject of quarantine, I have little to say—the first thought that presents itself, is that so much has our method been changed as to render the term quarantine, in good degree inapplicable—it is rather a port regulation.

On looking into our ordinances, it will be perceived, that the quarantine regulations originally were founded on this belief in contagion, but, it is long since any of the medical advisers, of the city authorities held such an opinion, and probably, were it not necessary to secure against small pox, as a contagious disease, the law relating to such diseases, would have been repealed.

At present it is deemed necessary to cause every vessel coming from sea, to come to, about a mile from the city, there to be boarded by a health officer, whose duty it is to examine into the state of health on board, principally with a view as regards persons on board, to guard against small pox; but in compliance with prejudice, which is not wholly removed from the minds of the populace, persons found sick on board, of severe fever, are sent to the hospital. The main object, however, in boarding, is to examine into the state of the vessel and cargo, under the belief that ships are very liable to become foul, and certain cargoes to become damaged. If nothing of this kind is found on board, the vessel is permitted to pass up to the docks; but if upon further examination, damaged articles, or any remarkable foulness of the vessel, are discovered, she must be removed to a safe distance from the wharf, the cargo removed, &c. as the case, in the opinion of the board of health, may require.

It will be seen, therefore, that while we have had a vigilant eye in the adoption of precautionary measures, to prevent the introduction of disease, we have, as far as consistent with that object, left commerce free from the shackles which hang over it, in other places, to the disgrace of the greater part of Europe, and some of our own cities.

We should have stated, that in the event of a foul state of the vessel, or damage of lading, one or both, as the case may require, are sent to the Lazaretto, to be dealt with as in the opinion of the health officer, may seem proper, who may call, when difficulties occur, on the mayor, the consulting physician, or board of health, for their aid or concurrence.

The above quarantine regulations, under the superintendence of the present officer, doctor Martin, have been found eminently salutary.

With much respect,

HORATIO G. JAMESON,

Consulting Physician.

To THOMAS S. SHEPPARD, Esq. }

JACOB DEEMS, Esq. }

PETER FOY, Esq. }

Commissioners of Health.

*Ueber die bedeutung und wirkung der Russischen dampfbäder, mit besonderer beziehung auf die zu Breslau errichtete Russische dampf-badeanstalt; vom Geh. Medicinalrathe prof. Dr Joh. Wendt. (Mit einer abbildung und einem grundrisse der badeanstalt,) Breslau, in commission bey J. A. Goschorsky. 1830.*

*On the manner of construction, and use of the Russian Steam-bath; with sundry circumstances connected with the steam-bath establishment at Breslau; by (Geh. Medecinalrathe,) prof. doctor Joh. Wendt; with a drawing of the ichnography of the establishment at Breslau, in the agency of J. A. Goschorsky. 1830.*

The work which appeared, with the above title, at Breslau, in 1830, has been favorably noticed in the Litterarische annalen der gesammten heilkunde, edited by our distinguished friend, professor Heker, of Berlin, in the April no. for 1831.

We are told that the Russian steam-bath has become common of late in Germany, and that its extension is at this time rapidly increasing; and its healing powers so manifest as to increase its use in many diseases. It is said that the steam thus applied, has advantages over the common bath, from the circumstance of the heat and moisture reaching the mucous membranes of the lungs, and intestinal tube; and, by exciting the skin more effectually, the internal organs are made to sympathise more, with the heat applied to the surface. The steam of hot water can be more suddenly applied and withdrawn; and can be borne at a higher temperature than the water bath.

We are also told that prof. Wendt has found that the steam bath, so far as he has had opportunity of trying it, decidedly beneficial in the following diseases:

In different varieties of catarrhal affections, that are not attended with active inflammation; rheumatism, and gouty chronic

eruptions; steady state of metastasis; scurvy; edema of the skin; cystorrhoea; dysuria; impaired digestion; and diseases of the intestines, as obstinate costiveness; crampy affections, and various nervous maladies. The regimen, and sometimes the ordinary remedies for the diseases for which the steam-bath is employed, may be continued with greater prospect of success along with the bath.

From what we have seen in Europe, we are convinced, that the powers of the steam-bath are by no means overrated, in the paper before us. We saw many conveniences in the different hospitals in the north of Europe, for applying the warm water bath: and in several places, we saw the bathing apparatus greatly improved by using a small boiler for the purpose of making steam, and carrying it into a bathing room. The advantages of this method are, that a tub placed in a dry room, many feet distant, can, by means of pipes conveying steam, be heated in a minute or two; whereas, to heat the water, or carry it in from any other apartment, would require a considerable time, and much more labor.

At the Hamburg hospital, in particular, we saw an establishment of this kind, where the apparatus was so contrived as to keep itself filled with the necessary quantity of water. By means of a small boiler, and quite a moderate fire, they are enabled to prepare several hundred baths per week, without almost any trouble.

We saw so far as our memory serves us, for the first time, at Hamburg, a small apparatus for applying a partial steam bath medicated with herbs, or drugs, of any kind, that may be acted on by watery vapor, and likely to be useful in partial rheumatic, or other painful affections. This is easily effected by filling a tin or copper box, with the ingredients, and then connecting a pipe entering near its bottom, to the pipe from the boiler in the story below—the hot steam entering into the lower part of a longish box, the material within is heated and moistened, so as to give out its properties, and the vapor thus impregnated is made to pass out of a pipe, at the top, or other end of the box. This terminating in a small hose with a nozzle at its end, the steam can be directed against the affected part, with more or less force, or with more or less heat, as may be desired, by opening the pipe, more or less, which connects this box with the boiler.

Such a contrivance may be made greatly useful without the boiler, by immersing a tin or other metallic box, in a pot of boiling water, first filling it with herbs, and adding to them as much water as will afford a supply of steam, for such length of time as may be thought necessary.

While in Hamburg last year, we had the pleasure of visiting with doctor Baries, the proprietor and projector of a very extensive, splendid, and expensive steam-bath establishment, in company with our highly respected friend, doctor Otto, of Copenhagen, and doctor Klose, of Leipzig.

Doctor Baries politely carried us through the entire establishment, where we were highly entertained for several hours, with the splendor, and ingenious contrivances for applying the hot and cold water baths; and the steam bath, with all their advantages, whether in relation to their medicinal application, the comfort, or the ornamental style of all the apparatus and furniture of this very extensive, costly, and useful establishment.

The proprietor of this establishment, told doctor Otto, and doctor Klose, who accompanied us, that he had been endeavoring to provide for the literati attending the medical convention, then in session, copies of his pamphlet, designed to show all the apparatus by drawings, together with the necessary explanations, &c. &c. To ourselves he promised, that so soon as his pamphlet was completed, a copy should be forwarded to us; and that he intended one for the President of the United States. We never received the work—whether it found its way to the U. States, we know not. We have not noticed it in any of the German journals, and yet, doubtless, it will be highly interesting. Doctor Baries certainly merits much praise for the ingenuity displayed, and the heavy expenditures which he has made in getting up this useful establishment. We hope ere long, to hear from some of our friends in Germany, on this subject. We believe that such an establishment would be well received, and would be found to be highly useful in each of our large cities.

We will not, at this time, attempt any description of this magnificent establishment, further than very briefly to state the plan of a steam bath.

A room of the necessary size is furnished with large benches, rising one above another, towards the wall on one side. The steam is admitted near the ceiling, from the boiler in an adjoining room—this diffuses itself over the house, and every thing of course becomes damp; and the heat inclining always to ascend, the lower the bench, the lower the temperature; so that when we enter, we may find an agreeable warmth below, while as we ascend, the air becomes a little more heated, and thus increases until it is insupportable, except for a minute, or perhaps even less. By the time you slowly ascend the benches to the uppermost, you are covered with perspiration, and now descending rapidly if you are to be cooled off suddenly, and getting to the centre of the floor, a sluice is suddenly opened over your head, and cold water descends in a torrent. There is also a room

similarly constructed as to the benches, &c. but instead of vapor, it is filled with heated air. This is done by a furnace, in which is placed oblong stone, with their long sides upward and downwards, by which they are made to add to the natural tendency of the heat to ascend, and thus is the air of the chamber heated near the ceiling to so great a degree of heat, that you cannot remain there but a very short time; and yet you find but little inconvenience from the heat, while standing on the floor. Notwithstanding the dryness of the air, one is speedily covered with a profuse perspiration.

When we entered here, we were advised to take the precaution of leaving off our coats. Notwithstanding we were soon incommoded by the heat, while doctor Baries apparently unconscious of this circumstance, continued his explanations in the German, with a vehemence which might well have added to the warmth of the room; but this being his habit, to speak with no less fluency and eloquence than vehemence, he did not suffer; because, his daily visits and occupancy of the bath rooms had no doubt rendered him less sensible to the effects of the heat.

These establishments seem, as has been stated, in the Berlin Journal, to be rapidly extending, not only in Germany, but through the north of Europe.

We were conducted by our friend, doctor Westring, at Gottenberg, in Sweden, to a very handsome circular bath house in that city, then building. It will doubtless be creditable to that place, as well for its utility, as for its beauty of structure. It is to be heated by pipes passing through a pretty extensive building, from one furnace. Whether this will fail to answer the expectations, in raising and diffusing the necessary quantity of heat, at so cheap a rate, is perhaps somewhat uncertain. We should be pleased to hear that the ingenious contriver of it has not been disappointed.

Before closing this notice of this Swedish establishment, we are constrained to remark, that notwithstanding the high esteem which we have formed for the Swedish character in general, still they are too regardless, we must say, of their women's rights.

Why is it that Charles XII. (Barnadotte,) in this enlightened and refined age, suffers the women of Sweden to be subjected to laws and customs which degrade them, so as to render their situation truly painful, to those who are accustomed to see women the companions, and not the slaves of men? We saw two good looking women tending masons, at the bath house in Gottenberg; carrying mortar, bricks, &c. in attire which would degrade a negro in this country.

*The following preamble was read by doctor Jameson, before the medical convention at Hamburg, in 1830, introductory to his paper upon the non-contagiousness of yellow fever.*

MR. PRESIDENT,

It is not without extraordinary emotion that I rise before this august assembly, for the purpose of making a few remarks. I feel conscious of being surrounded by many of the literary luminaries of Europe, and believe, that here is to be seen much intellectual light concentrated, as it were, to a focal point.

Thus surrounded, it is not an easy task for me to offer my feeble efforts, for the promotion of science, without some apprehension, that I may fail to instruct or interest. But believing as I do, that those who are best able justly to criticise, are most sensible of the difficulties, which lie in our way, in the cultivation of our science, I may venture to look to such for the greatest share of indulgence.

I cannot conceal the fact of my feeling some misgivings, on account of my standing here, the only representative of my country—though fully persuaded that it is the primary object of this assembly to extinguish national distinction, in matters of science, still the thought occurs, that, I stand here unsupported by a single countryman, and am about to engage in the decision of a question,\* which has been long, and warmly, contested; and which, while it may be received in a spirit of friendship by some, may beget unkind feeling in others. On this point, I can only say, that I can have no motive in striving to mislead. Whatever I offer, shall be in sincerity, founded on the immutable basis of truth, so far as I can scan it.

*Case of very extraordinary propensity to wickedness in the human mind.*—Among the singular aberrations of intellect which have come under our notice, we wish to relate the following as the most extraordinary.

When the present writer was in Europe last year, he was informed that a woman was then confined in the prison at Bremen, on a charge of having poisoned a considerable number of persons with arsenic. It was represented that this had been practised for several years, by the woman Gottfried.

Having expressed a desire to see this singular woman, our friends doctors Barkhausen and Wilchens, politely used their in-

\* The question whether yellow fever be contagious. The speaker in this case had the felicity of obtaining, as far as he could ascertain, the decided approbation of all who were present, although he warmly advocated the opinion of the non-contagious nature of yellow fever, as will be seen by reference to his essay, in the present volume.

fluence in procuring us an interview with the prisoner—to obtain which was now attended with some difficulty, in consequence of there having been a very general desire to see her, and some improprieties which attended a too promiscuous intercourse.

Doctor Barkhausen having represented to a member of the senate of Bremen, (doctor Trost,) our desire to see the prisoner, consent was most readily and politely given; owing, we believe, to our being a medical man, from a foreign country, held in high respect in Germany.

Upon reaching the cell of Madam Gottfried, we beheld a good looking woman, not particularly remarkable in any one trait in her features, or expression, nor in the tout ensemble, till after a very close and particular examination, when we were led to observe a silly or simpering smile, and a drooping mouth.

The eyes looked weak, as though she might have been weeping, though not at the time we entered. After a salutation, marked with kindness, on the part of the gentleman who accompanied us, and rather more respectful than we expected to see, to a female placed in so degrading a situation—her health was inquired into, to which she replied, that her eyes were tender, and affected with some uneasiness for some time past. She was now told by our polite conductors, that the present writer was a doctor, and that she had better permit him to examine her eyes.

It may well be supposed, that this afforded a good opportunity for examining the features of her face, very minutely—and upon asking whether she was affected with headach, she answered in the affirmative; and thus afforded an apology, without rudeness to this unfortunate woman, to examine her head carefully, by sight, and by feeling it. Still we could discover nothing remarkable, and we were assured by the gentleman who conducted us, that she had been visited, and carefully examined by many physicians, some of whom made pretensions to phrenology, but, that they all agreed in saying there was nothing remarkable in the formation of her head. The expression was sufficiently feminine, her complexion and skin very good; form and size not remarkable. It is a little remarkable, that the wife and daughter of the present writer, who saw this woman, both formed the same opinion of the simpering, and silly expression of face which he formed; and this without any concert, as we did not visit together; and yet, none of those with whom we conversed, would admit the existence of any such cast of face.

Being asked by doctor Wilchens for our opinion, we stated, that, agreeably to Lavater, she had a bad mouth. He seemed pleased with the allusion, and told us that celebrated physiognomist was a distant relation, and particular friend of his mother.

We were told by doctor Trost, that this woman had already



been on trial; that the court of which he was a member, had satisfactorily ascertained that she had administered arsenic in small quantities to upwards of fifty persons. Of these, eleven or twelve had died—upon the remainder, injuries of various degrees had been inflicted, some had been maimed, others had been kept for a length of time in a state of severe suffering, by giving the poison in very minute doses.

Among those who had been poisoned to death, were her father and mother, brother, three of her own children, (all she had,) two or three husbands, some female rivals, and some apparently without any obvious motive.

It was but too evident that in the case of her father and mother, and brother, her object was the obtainment of their property, which she did obtain, without suspicion at the time. Her husband, and the father of her children, it is said, she poisoned in hopes of getting another man, for a husband who had manifested some regard for her, he having objections to marrying a woman who had children, she poisoned these also—this man refusing still to marry her, she poisoned him, and also some other of her amators.

Prior to the time we saw her, she had made partial confessions, and acknowledged, that in many cases she gave poison, without any motive whatever; but, merely because she had a pleasure in doing it: the pain, maiming and death, which this caused, afforded her something like satisfaction.

A short time before our visit she had been arraigned before the criminal court of Bremen, where ample testimony was had to convict her, but there were some points of law, and some facts in a train of investigation, which induced the court to postpone the trial a few weeks. While we were at Hamburg our friend doctor Barkhausen brought word of her final condemnation, in the month of September.

The prisoner made some inquiries of the gentleman who visited her cell, whether she was likely to be long confined, and, if we understood her rightly, she expected to be liberated notwithstanding the proof which had appeared against her, and her own confessions.

We were told by several persons, that this woman had for years enjoyed respectable society, and was considered intelligent, and handsome—for our own part, though we confess that while in the bloom of youth, she may have been passable, she could never have had a good face, or an agreeable countenance, much less any real beauty. Though she entered into life, and enjoyed the respect of good society for years, it was gradually discovered, that she was destitute of "a moral feeling." She was found to be covetous, treacherous, lascivious, a liar, cheat, in short, she was a

compound of all that debates the female character. Was this woman really destitute of a moral faculty, or did her first enormities, in murdering her parents, cast her from the protection of her Supreme Protector, and thus leave her a prey to all that is diabolical in a human creature? These reflections we leave to the Divine contemplator of human nature—as physiognomists, phrenologists, and metaphysicians, we are deeply interested; and it is to be hoped that pains have been taken, in Germany, to ascertain if there be any characteristic marks of the mental qualities of this woman.

Our kind friend doctor Wilchens presented us with a *likeness* of the woman Gottfried—attached to this is a sort of confession, in the hand writing of the prisoner, written during her confinement. We give it in the original, with its translation.

Herr Senator,

Jemehr ich über meine vielen und schweren sünden nachdenken fühle ich was ich hier auf der welt verdient habe, doch wenn es vom lieben Gott zu erbitten ist, so geben sie mir eine milde Todesstrafe; mein hertz sehnt sich beym lieben Gott zu sayn, der mich unglückliches geschöpf gewisz mich ewig von sich stozen wird.

GOTTFRIED.

Mr. Senator,

When I reflect on, and lament over, my many and weighty sins, I feel what I have deserved in this world; but if it may be asked in God's name, I beg that I may have an easy death. My heart desires to be with God, who has formed me (*unglückliches*—unluckily) imperfectly, and certainly will not cast me from him forever.

GOTTFRIED.

Without stopping to inquire into the sufficiency of the atonement of the Saviour, to relieve from sin, we cannot but feel surprise at the confidence with which this wicked woman seems to repose, in the goodness of God; and this confidence growing out of the fact, as she supposes, of his having imperfectly formed her—nor does she seem to have turned her attention to the Redeemer.

Such is a brief outline of this most extraordinary personage; no doubt we shall have the particulars more fully detailed by some of the physicians of Bremen.

Since our return from Europe, we have been informed, by a distinguished friend at Bremen, (letter dated Bremen, May 11th, 1831,) that, "a fortnight ago, we had here an awful sight, the execution of Mrs. Gottfried, for giving arsenic to about 24 persons; or more. She behaved with great firmness while the executioner chopped off her head; after she had been seated in an arm chair. Her organs bear unusually strong symptoms of the propensity to

murder, which speaks in favor of Gall's doctrine, or theory of the form of the human head."

The reader will have noticed, that we have said that all the physicians and phrenologists, who had seen this woman, up to the time we saw her, agreed that neither the head nor face, exhibited any of the marks which are supposed to indicate murderous, or combative propensities, and that we did not find any unusual prominence about the mastoid processes. If, as our friend intimates, these signs were more visible after death, we must admit that the views of Gall are, in good degree, correct—for ourselves, we never doubted, that a certain construction of the skull, indicates certain propensities, but the signs, and mental operations, are still enveloped in mystery, which seems only to be made more uncertain, and not less unsatisfactory, by the imperfect knowledge which we possess.

*Singular case of mental idiosyncrasy.*—We are acquainted with a boy, aged eleven years, who has manifested a singular aversion to the "root of all evil." He is the son of very respectable parents, who are somewhat remarkable for their good sense, and general well doing, without any singularities of character whatever about them.

It was observed while he was quite young, by his mother, that he would not play with money as other children do, but no one had paid any particular attention to the circumstance, till one day when a relation of the family was about to leave the door, he put his hand into his pocket, and took out a very bright new cent, (copper coin,) and telling the boy he had something for him, the boy opened his hand, and received the cent, before being aware of what it was—Upon shutting up his hand, and finding what it was, he screamed most terrifically, so as to alarm those around him. The gentleman supposing that he was displeased with his giving him so small a present, apologised, telling him he had no more change, and was sorry he could not then satisfy him, but would make amends some other time; but the boy, totally regardless of what was said, continued to roar, and jump about, in a state of distraction; and it was some time before he could be reconciled, although he had thrown away the cent with violence the moment he discovered what it was.

This occurrence happened three or four years ago, and from that time, he has never touched money without being beaten into compliance. Every method has been tried to remove his objections, but in vain—Whatever he was known to be fond of, has been withheld, till his desire was great, and then money offered to buy it; but he would rather forego any thing upon earth than convey the money from the hand of one person to another,

When he has been extremely anxious to possess an article, whether eatable or not, he would go without rather than take the money from his mother, and hand it to the seller of the article; and if his mother laid it down on the counter or elsewhere, he would follow her, leaving both the money and the article. He has been compelled a few times to take it, but it is of no avail, the next hour he refuses as obstinately as ever, at this time, for we saw him and his mother last month, and she assured us, his conduct in this respect had not changed in the slightest degree.

This boy was long in learning to talk, and even now articulates very indistinctly, so that a stranger can only understand him by very close attention—his expression is intelligent, his face good, but somewhat chubby—His disposition is a little hasty, but he is as affectionate as boys of his age usually are, and cannot bear the displeasure of his mother, without great suffering.

He learns but slowly at school, but it appears to be more owing to his indistinct pronounciation, than to any defect of mind. He appears to see his letters well enough, but it is a singular fact, that he sees objects at a great distance, much better than near. His mother told me that he could distinguish persons passing and repassing a bridge, which is at a considerable distance, so well as to see rather more distinctly than herself, though she has good sight, and yet he daily walks against chairs, or stools, in rooms of their own house; and in rising strange stairs, he has obviously to groupe his way, as if he was in the dark. In short, she tells me she has satisfied herself, that he sees objects near him very imperfectly, whereas, at a distance, he sees better than most other persons; all which she has tested by a great number of trials. We think a more singular case of slight mental aberration, is not on record, than the case of this boy, in the total rejection of money with abhorrence, and, from some inexplicable cause, since nothing ever occurred, to the knowledge of any one, that could have terrified, or given rise to an aversion to the article.

Three or four years since, he had a great dislike to any thing like medical attentions, and would fight the physician when very weak with fever, and if his hands were held, he would kick lustily, and in good earnest. About two years ago, he had a very violent spell of bilious fever—his life was despaired of, he having had five or six violent convulsions in one day. He was bled very copiously and repeatedly, and took a good deal of active medicine. He from that time became attached to the present writer, and treats him with a degree of attention and kindness, which is quite equal to any thing we have seen in a boy of his age.

*Case of gradual impairment of the senses of smell and taste, without any obvious cause.*—The editor of this journal, about ten

years since, observed some defect in his organs of smell. It was first noticed in smelling at the different essential oils, occasionally added to prescriptions. About the same time, it was found that all fresh animal food tasted stale, or as if it was slightly impregnated with ammonia, and not well cooked. And so unconscionable were we of the true nature of the case, that we blamed the butchers with selling meat slightly tainted. But there was a greater difficulty with fish; both salted and fresh, tasted like raw fish, and we were frequently put out of temper by the supposed carelessness of the cook.

A little time and reflection, explained the nature of the case, for we soon found that our taste was perverted, as well as the smell, and in nothing was it more remarkable than in apples and cider; but every thing which came before us, had an unnatural and rather forbidding taste, with the single exception of good bread and butter—chicken soup was an article which held its taste most perfectly among articles of animal food. Coffee was very unpleasant, and totally laid aside for a whole year; we used tea as a substitute, but it, too, did not gratify the palate. It would be in vain to attempt to trace all the peculiarities; it may suffice to say, that with the exception of bread and butter, as we have stated, every thing had an unnatural taste, but some articles much more so than others—although we still used a moderate portion of animal food, we did not relish it.

At one time, such was the state of the senses of taste and smell, that we could not for the life of us, find some spirits of turpentine, which we looked for in the office, without a label. We had suffered much from sick headach, or rather violent headach, without much sickness of the stomach, for several years, and were in the habit of bleeding copiously for it. We subdued the disease, after a time, but suffered some degree of constitutional debility, from the frequent detractions of blood, but whether this had any agency, either in bringing on the disease, or in its removal, we will not undertake to decide, but we left the case to nature, never having resorted to any measures, with a view of removing the nervous impairment. The disease disappeared as gradually as it came on, and we could scarcely say at what precise period the disease set in, or was totally removed; we well recollect that the derangement of the senses was very considerable, and attended with much distress, and inconvenience, for the period of time above mentioned.

We have thought the relation of this case might be, in some degree, interesting, from the fact of so complete a recovery, from so serious an impairment of the organs of two of the senses.

[*Observations on the head, with loss of a portion of the brain, which, nevertheless, constituted fatality.*—The few particulars of a case which we are about to relate, are taken, by permission of our friend, Mr. Hood, (now a student in Washington Medical College,) from a letter written to him by doctor A. Stuart, formerly a fellow student, and now a graduate of the same College.]

It is stated, that "about six weeks since, my much esteemed friend and partner, Dr. F., and myself, were called to see a boy who had his skull fractured, by the kick of a horse. Upon examination, we found a considerable wound of the scalp, accompanied with an extensive fracture of the skull bone, sufficiently large to admit of the introduction of the finger, to a considerable distance, into the substance of the brain. Upon enlarging the wound of the scalp, a portion of the brain escaped; and an extensive fracture of the interior part of the left parietal bone, presented itself. We removed a portion of the bone, about an inch in length, and half an inch in breadth, that had been driven into the substance of the brain, and two others about the same size, that were depressed in a lesser degree—the meninges of the brain were lacerated.

After we had removed the fractured bones, we brought the flaps over the wound, and they united by the first intention—the boy recovered without any unpleasant symptoms: the day after the accident, there was considerable excitement, which was reduced by the abstraction of about eight ounces of blood—this, together with some aperient medicines, was all that we found necessary, in the medical treatment. We kept a constant eye to the condition of his system, in order that we might prevent inflammation, by timely depletion, at the same time that we might not let the energies of the system become so much prostrated, as to endanger the production of fungous cerebri: the boy is now enjoying excellent health, and walking about."

[We are sorry the above interesting fact, from our friend, doctor Stuart, did not reach us in time for our original department. We deem it too interesting to pass over; though by no means a new case, yet so deadly are injuries of the brain, generally speaking, that it is consoling to see occasional recoveries under circumstances so very discouraging.]

*Observations on the use of wine as a beverage.*—The editor of this Journal, in his tour through the north of Europe last year, sojourned a few days at Bremen. Among the curiosities which came under his notice, calculated to interest the naturalist and the physician, is that of the "wine cellar," of Bremen. This establishment has been kept up for several hundred years, by the city authorities, who have been laying in large quantities of wines,

essentially, for that period of time, and have been employed for the purpose of conducting the establishment, that is, taking care of the wines, and retailing them out.

We were informed that it had been considered a source of revenue; but that more careful attention to its outlays, and income, prove it to have been a source of loss, for a long period of time. This, however, has nothing to do with the subject before us, in the point of view in which we purpose noticing it; we shall, therefore, proceed to notice some of the most important circumstances, connected with this very extraordinary establishment.

Much care has been taken to keep the wines of different vintages separated, free from admixture, and in large bodies, so as to afford them all the advantages which may arise from giving them age. Many of the casks contain several hundred gallons, and have been kept in a situation, (as well in regard to the place, as the bulk of the articles,) to secure a low and regular temperature: we would judge about 70 to 75 of Fahrenheit's thermometer.

We visited this place, with our friend Capt. Dunbar, and the wife and daughter of the present writer. We were shown several rooms filled with immense butts, containing, we were told, three hundred gallons each. In one room were twelve butts, each containing that quantity, and the several casks marked with the names of the several apostles—and the keeper somewhat archly remarked, that Judas Iscariot was the best wine. Having previously tasted wine too old, we had no desire to take this, since we were told by some who had tasted those very old wines, that they were little better than vinegar. They differ, however, from vinegar, we were told, in having a great deal of alcohol in them, so much as to lead readily to intoxication.

A card having been presented, containing a list of all the wines in the cellar, with the age, price, &c., we selected a bottle of Rhenish, (Hock,) which was 106 years old; and, although drank out of the favorite hock glass of the Germans, not one of us relished this wine—it was acerb, and somewhat unpalatable. The favorite hock glasses are perfectly green, and give this colorless wine, a fine green appearance; and the mouths being drawn in somewhat, it is said, gives a fine flavor to the wine, owing to the agreeable pungency which this form of glass is said to afford.

No one of the four in our company, relished this wine: we therefore, ordered some of the vintage 1817, which was now in its thirteenth year, and was a very agreeable wine; presenting a greater degree of transparency, and a more agreeable flavor, than the older. We were informed that few, if any, persons, relished the very old wines; that they were all somewhat vapid and sourish, compared to wines of the same kinds, at moderate ages. We

were assured by several competent judges, that it was now well ascertained, that the common opinion, that wine improves with age, is erroneous, in the common view of the subject. The fact is, that they arrive at the greatest state of perfection, at from 11 to 15 years, and though they remain a good many years rather stationary, they very gradually become deteriorated. We believe this is a circumstance which may be relied on, and, therefore, persons who are desirous of possessing their wines, in their greatest perfection, should not use them under ten, nor after 20 years, as a matter of choice.

This cellar was in the occupancy of Bonaparte during the stay of his troops at Bremen, but it was a matter of exultation to some of the people of that city, that Bonaparte did not discover what is called the *rose cellar*—a room or apartment containing a vessel of wine said to contain 500 gallons, that has been kept nearly five hundred years. It is called the *rose cellar*, from the circumstance of the ceiling having a rose painted on it, perhaps three feet in diameter. Bonaparte did not, however, materially disturb this wonderful collection of wines, alike remarkable for the quantity, the pains which have been taken to improve the article, and the folly in persisting in the measure, after ascertaining that the wines, after a moderate age, instead of improving, deteriorate every year, however slowly that impairment may take place.

*Of the "dead cellar," at Bremen.*—There is a small apartment of the cellar, under one of the old churches at Bremen, in which putrefaction of animal matter will not take place. We here saw eleven or twelve bodies that have been preserved for different periods—from forty to upwards of four hundred years. Some upwards of one hundred, some upwards of two, some three, and one four hundred years, as already stated.

All these bodies are in a far better state of preservation than any Egyptian mummies which we have seen, and yet they have neither been embalmed, nor were they embowelled. They all present the same appearance; the body at the period of 40 years, differing in nothing visible from that which has been kept upwards of four hundred. They seem all to consist entirely of the skin and bones. The viscera, and the muscles throughout the body, seem to have wholly disappeared, so that the cavities are hollow; and, when the abdominal region is struck with a stick, it produces the noise peculiar to a cavity loosely covered with leather. The skin is not much darkened, though somewhat so in places—it has the smooth and shining appearance of parchment, and resembles a good deal, the parchment on drum heads.



The limbs are not flexible at the joints; but the integument on the abdomen is quite elastic. The nails and teeth, are perfect, and seem to be firmly set in their respective places.

The circumstance of the preservation of these bodies, is the more remarkable, from the fact of every one of the persons whose bodies repose here, having died violent deaths. One is a general, who fell in a battle with the Swedes; another was his aid-de-camp, who died at his side—the one by a ball through the thorax, the other by a bullet wound through the arm—the latter, there is every reason for believing, died from the hemorrhage, as no other injury appears, and the wound is in the course of the brachial artery. Another was a carpenter, who fell from a steeple, in which we counted 14 stories; and, strange to tell, he fell so as to break his neck, and did not fracture his skull, as we had an opportunity of seeing, by examining the body, the head, and the neck, which latter was quite moveable where it had been fractured. We all thought that the features of the face of this body, exhibited something of the horror of expression, which may be supposed to attend a person in the act of falling, under such circumstances.

We were assured by the medical gentlemen who accompanied us to this cellar, that no chemical test discovers any difference in the atmosphere of this room, over that in any other part of the under story of this church, or in any common situation.

Small animals left hanging up, speedily become dried, not excepting the viscera. We saw a cat which had undergone the changes which take place in this room: it was as flat as the hand, devoid of hair, the skin horny, and semi-transparent. In short, there appeared to be nothing but the skin and bones—how long it had been there, we know not, but judging from its dried and horny appearance, and the state of the human bodies beside it, we should think it will remain in its present state for ages. We also saw some small birds, in a fine state of preservation—these being preserved with their feathers on, look better than the small quadrupeds; since the latter become deprived of their hair, and muscles, and consequently become very thin, and comparatively shapeless.

*Of the promenades at Bremen.*—The city of Bremen, in olden times, was surrounded with a high wall—this, we may well believe, was a necessary precaution, during the war-like disposition of many of the nations of the north of Europe. It is not our intention, however, to enter into the history of these people, but assume the more pleasing task of recording the fact of these walls having been thrown down, and levelled, to form the ground plat of one of the most beautiful promenades, perhaps, in the

world. Here is seen a most tasteful and beautiful arrangement of gravel walks, grass plots, beds of flowers, collections of flowering and other shrubbery, and trees; all grouped, and arranged so skilfully, as to avoid the stiffness which too often arises from too many squares, circles, &c., being crowded together. There is a peculiar assemblage of the several articles, as shrubbery, trees, grass, gravel walks, flower beds, &c., all appearing to the eye as so many separate and regular parts of one grand *ensemble*, neither rendered terse by too much order, nor yet disfigured by an unskilful or careless confusion of parts.

To form any thing like a tolerable estimate of the beauty of this delightful promenade, we must imagine we see a ground plot laid with tasteful skill, of grass, gravel walks, flowers, shrubbery, trees; each embracing all the most beautiful specimens of their several kinds, and the whole presenting a collection constituted of almost every thing native, or exotic, that will bear the climate. This may, indeed, be termed the banqueting place of *Flora*, since one is delighted with every thing that can afford delight, in respect to florific richness of coloring, or regale the sense of smell with thousands of odors, richer than all the balsams of the ancient eastern world. But language totally fails us, in endeavoring to convey to others, the delight afforded by a walk through this enchanted spot. There the mind may fully realize one of the sublimest pleasures—the enjoyment of one of nature's richest gifts, amid these enchanted groves. Nothing in our apprehension is better calculated to soften and refine our nature, than to contemplate these rich productions of nature, arrayed in all their pristine beauty. No pains have been spared in preparing the soil, and in the proper culture of every article, so that whether you look at the tree, the shrub, the grasses, the flowers, &c., every thing is clothed in all its richest attire. While the eye is delighted with a splendid view of thousands of the richer colors; with their ten thousands of inimitable shades and blendings, the sense of smell detects, in rapid succession, the varied odors, ever wafted, far and wide, through the air as it passes through the expanding flowers.

It is a pleasing fact, that in traversing this grand display of floral beauty, not a solitary mark of the hand of rudeness is to be seen! Not a flower is molested! not a leaf, or blade of grass, disturbed!—No ruffian hand has notched with pen knife; defaced a plant, or a shrub, by tearing off its branches—every thing remains unmolested! In addition to the various living objects, we see here and there, at convenient distances, settees white as snow, and without a scratch, notch, or blemish, by knife or pencil!

No rude boys are to be seen, but one is delighted to see the

cleanly clad nurses passing and repassing the walks, with their little nurslings, both bearing the marks of rosy health; and smiling with the smiling face of nature around them. Never have we seen nurses, and their little nurslings, appearing in so much neatness, and apparent happiness. Capt. Dunbar, who several times enjoyed the pleasures of passing through these promenades with us, told us that an acquaintance of his counted upwards of two hundred and fifty children, on one afternoon, who were enjoying the wholesome air of "the ramparts," as they are called. Surely this exposure to the salubrious air, together with the well timed exercise of these children, must be highly conducive to health, while the habit which is formed of visiting, and enjoying all these beauties, without disturbing, or in any way defacing them, must be no less useful in a moral point of view, than it is in point of healthfulness. This is not the enviable possession of one individual, who may occasionally admit visitors, perhaps to gratify his own vanity, but it is common property—being alike open to all; every one may alike enjoy this "feast of soul," provided only that he conduct himself decently. No exclusion is thought of, there being no fence or other obstruction in the way of any one.

What would not such a collection be worth at Baltimore—in our opinion, it would conduce more to our enjoyment, be equally creditable, and be more attractive to the eye of strangers, than any of our boasted public edifices, to say nothing of its sanative tendencies. But added to our monuments, it would raise our city high, indeed, before an admiring world.

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It seems proper that we should apologize to our readers, for the discrepancy of arrangement in the present number. It has so happened, that the paging has been advanced, in passing from one number to the other, and thus led us to believe we had completed our matter, when we were two forms short, (24 pages.) This, then, is the reason of our printing the following article upon fever, under the head of miscellany.

The following observations on fever, were written by us several years since, and on a careful review of them, we think they are calculated to throw light on this truly important subject. The following is our order of arrangement, and although we disclaim novelty in the common acceptation of the word, we nevertheless believe, that some arrangement of the subject is absolutely necessary, for the more easy explanation of this intricate subject.

*Of Fever in general.*

CLASS I.

OF IDIOPATHIC FEVERS.

1. Idiopathic fevers may partake of two orders:
  1. Of the Sthenic,
  2. Of the Asthenic,
2. The Sthenic Order may partake of the
  1. Pseudo Remittent,
  2. Remittent,
  3. Intermittent,
3. The Pseudo Remittent Genus may partake of the
  1. Synocha,
  2. Synochus,
  3. Synochoid,
  4. Gangrenous,
  5. Heetic,
  6. Occult,
4. The Remittent Genus may partake of the
  1. Synochus,
  2. Synochoid,
5. The Intermittent Genus may partake of the
  1. Synochus,
  2. Synochoid,
  3. Occult,
6. The Asthenic Order may partake of the Pseudo Remittent Genus only, and this may partake of the
  1. Febricula,
  2. Typhus,
  3. Typhus Gravior,
  4. Gangrenous Typhodes,

CLASS. II.

OF SYMPTOMATIC FEVERS.

7. Symptomatic fevers may partake of two orders:
  1. The Sthenic,
  2. The Asthenic,
8. The Sthenic Order of Symptomatic Fevers may partake of the
  1. Pseudo Remittent,
  2. Remittent,
  3. Intermittent,

## 9. The Pseudo Remittent Genus may partake of the

- |                |   |          |
|----------------|---|----------|
| 1. Synocha,    | } | Species. |
| 2. Synochus,   |   |          |
| 3. Synochoid,  |   |          |
| 4. Gangrenous, |   |          |
| 5. Hectic,     |   |          |

## 10. The Remittent Genus may partake of the

- |                |   |          |
|----------------|---|----------|
| 1. Synocha,    | } | Species. |
| 2. Synochus,   |   |          |
| 3. Synochoid,  |   |          |
| 4. Gangrenous, |   |          |

## 11. The Intermittent Genus may partake of the

- |               |   |          |
|---------------|---|----------|
| 1. Synochus,  | } | Species. |
| 2. Synochoid, |   |          |

## 12. The Asthenic Order of Symptomatic Fevers may partake of the Pseudo Remittent Genus only, and this may partake of the

- |                |   |          |
|----------------|---|----------|
| 1. Febricula,  | } | Species. |
| 2. Gangrenous, |   |          |
| 3. Hectic,     |   |          |

From the foregoing arrangement we obtain these terms:

- |                                    |   |                      |
|------------------------------------|---|----------------------|
| 13. A. Pseudo Remittent Synocha,   | } | Sthenic Idiopathic.  |
| B. Synochus,                       |   |                      |
| C. Synochoid,                      |   |                      |
| D. Gangrenous,                     |   |                      |
| E. Hectic,                         |   |                      |
| F. Occult,                         |   |                      |
| G. Remittent Synochus,             |   |                      |
| H. Synochoid,                      |   |                      |
| I. Intermittent Synochus,          |   |                      |
| J. Synochoid,                      |   |                      |
| K. Occult.                         |   |                      |
| 14. L. Pseudo Remittent Febricula, | } | Asthenic Idiopathic. |
| M. Typhus,                         |   |                      |
| N. Typhus Gravior,                 |   |                      |
| O. Gangrenous Typhodes,            |   |                      |

15.	P. Pseudo Remittent	Synocha,	} Sthenic Symptomatic.
Q.		Synochus,	
R.		Synochoid,	
S.		Grangrenous,	
T.		Hectic,	
U.	Remittent	Synocha,	
V.		Synochus,	
W.		Synochoid,	
X.		Grangrenous,	
Y.	Intermittent	Synochus,	
Z.		Synochoid,	
16.	AA. Pseudo Remittent	Febricula,	} Asthenic Symptomatic.
BB.		Grangrenous,	
CC.		Hectic,	

### OF THE SIGNS OF ALL FEVERS

17. A fever is a morbid condition of the body, and is discoverable by the following *connote signs*.\* But, there are many *occasional signs*, which more especially point out the character of individual cases.

#### Of the Connote Signs:

18. The *connote signs* of fever are but few; they are, first:  
A. Some disturbance in the arterial system; and, although this is sometimes slightly expressed, and at times not discernible at all, still, it may be laid down as an invariable fact, that, no person, laboring under fever, can pass twenty-four hours without some derangement of the arterial action. This derangement is to be learned by carefully studying the pulse. See 26.

19. B. Some change in the skin, which is either preternaturally warm, cool, moist, or dry; or, affected with the cutis anserina, soreness, discoloration or some eruption. See 27.

20. C. Some change in the feelings of the patient, as respects temperature, being either preternaturally warm or cool. Although this is not always present, yet, no person of sound mind, can pass through a paroxysm of fever without being sensible of it.

21. D. Some diminution of the animal powers, or (in some rare cases) an increase thereof, for a short period of time.

\*We have adopted the term *connote signs*, as being more significant of our meaning than that of *pathognomonic signs*. By the term *connote* we mean a sign which indicates something beside itself—thus by the recognition of one of the signs put down as *connote*, we are given to understand, that all those put down under this head are present; whereas, the term *pathognomonic sign* only indicates any one sign that is inseparable from the disease of which it is one of the signs.

22. E. Some disturbance in sleep which is, either deficient, or excessive.

23. F. Some disturbance of the respiration. And, although the patient may not always feel, or exhibit to others, any derangement of this kind, when composed in a horizontal position, yet, it occurs when any muscular action takes place.

*Of the Occasional Signs.*

24. In bringing to view the *occasional signs* of fever, I shall have occasion to bring some of the *connote signs* again to view. For, although these signs are implied in all cases of fever, and confined to particular parts of the system, yet, as there are different conditions of the parts concerned in expressing these *connote signs*, it is necessary to bring them individually to view. With these preliminary observations, I proceed to point out the *occasional signs* of all fevers.

25. The signs, of which more or less are to be found in all fevers are:

- a. Nausea or vomiting.
- b. Foulness of the tongue,
- c. Pain in the back, head or other parts of the body.
- d. Giddiness.
- e. Morbid cravings for some particular drink or food.
- f. Preternatural thirst; or in some rare cases adipsia.
- g. Some disturbance in the urinal functions, being an increase or diminution of the quantity; or it is loaded with a lateritious sediment, or is unusually limpid.
- h. Some derangement of the bowels, which are too open, or constipated; or disturbed with flatus.
- i. Spasms, sometimes in form of convulsions, tetanus, &c.
- j. A soreness of the flesh.
- k. Hemorrhagy.
- l. Hiccup.
- m. Tinnitus Aurium.
- n. Intolerance to light and sound.
- o. Delirium.
- p. Subsultus Tendinum.
- q. Cough.
- r. Deafness.
- s. Coma.
- t. Loss of vision, and false vision.
- u. Paralysis.
- v. Affections of the eyes, being a suffusion, red or yellow; want of lustre, dilated, or contracted pupils.
- w. Aphthæ.
- x. Stridor Dentium.
- y. Facies Hippocratica.

*Further Observations on the Connote Sign A.*

26. In 18, I have spoken of the arterial action, which consists of the following conditions of the pulse:

- a. Preternaturally frequent.
- b. slow.
- c. strong or hard in its beats.
- d. tense to the touch, that is, unyielding.
- e. feeble in its beats.
- f. soft to the touch, that is, too yielding.
- g. Intermittent.\*

*Further Remarks on the Connote Sign B.*

27. h. Among the *connote signs*, I remarked that the skin is sometimes preternaturally warm; this is sometimes partial, but mostly general.

i. The skin preternaturally cool, amounting sometimes to chills, or shiverings; sometimes partial, situated in the back, or lower extremities.

j. The skin preternaturally moist or open, being sometimes a profuse deadly sweat, as in the sudor anglicus, or in form of colliquative sweats, in hectic fever. Sometimes moderate, and may be salutary, unimportant, or prejudicial.

k. The skin preternaturally dry, this is much the most common state of the skin, in fevers of this country, particularly at the commencement, often discoverable by a rough, husky feel.

l. The cutis anserina is mostly an attendant upon a chilly state of the body, and, therefore, is found mostly about the accession of a paroxysm of fever; this appearance is not, however, always an evidence of disease.

m. Soreness of the skin sometimes attends rheumatism, and other inflammatory diseases, but is, perhaps, most common in malignant fever.

n. Discoloration of the skin arises, perhaps, in all cases from suffusion of bile; and is to be met with from the mild intermittent, to the most malignant yellow fever.

o. Eruptions are sometime accidental, as in croup, cynanche maligna, yellow fever, &c. Sometimes characterizing the disease, as in small pox, measles, &c. I shall have occasion to notice the subject again. And shall proceed to make some observations on *Susceptibility* or *Predisposition*.

\*It will be necessary, hereafter, to devote a lecture to the subject of the pulse.



## OF SUSCEPTIBILITY COMMONLY CALLED PREDISPOSITION.

28. Having now pointed out the various signs or symptoms of fevers, I shall make a few observations on *susceptibility*, before I proceed to speak of the *causes* of fever; for, it is manifest that there must be a condition of the human body, which shall serve as the medium upon which those noxious powers can act, in order to produce fever. The reader will find, that, although these susceptible conditions are distinguishable by a liability to suffer certain and distinct encroachments on the system, that still different diseases, to which we are liable, may assail the constitution through the same susceptible condition, and, therefore, some of the diseases, to which mankind are liable, will be found operating upon different kinds of *susceptibility*. See 50. All susceptible conditions may be distinguished into four different kinds, and these I shall endeavor to explain under the terms of,

- |  |   |                 |
|--|---|-----------------|
| <ol style="list-style-type: none"> <li>1. Extinguishable,</li> <li>2. Inextinguishable,</li> <li>3. Fortuitous,</li> <li>4. Particular,</li> </ol> | } | susceptibility. |
|--|---|-----------------|

29. The *extinguishable susceptibility*, under equal circumstances, subjects every human creature nearly alike to be acted upon by certain noxious powers. The most remarkable of the diseases which can assail us through the medium of this condition, are small pox, measles, hooping-cough, chicken pox, angina parotidæa, and cow pox. This condition is distinguished by the circumstance, that, (with very few exceptions,) it is wholly destroyed by the operation of those diseases which act upon it. See 50.

30. The *inextinguishable susceptibility* is one which disposes all persons nearly alike, to certain diseases, under equal circumstances; but differs from the *extinguishable* in the circumstance that, we are liable to a repetition of those diseases that assail us through the inextinguishable condition. The diseases which attack us through this condition, are principally epidemics and endemics, including intermitting, remitting, typhus, and yellow fever, scarlet fever, plague, influenza, and dysentery. This condition also, renders us liable to the venereal disease, itch, scurvy, hydrophobia, goitre, and scrofula. Should the existence of such a susceptibility be doubted, I beg leave to remind the reader that, persons often resist the effluvia which are known to produce influenza, ague, and the like, and still they may be affected with rheumatism, common inflammatory fever, &c. from fatigue, intemperance, and the like: so may a person escape the

venereal disease sometimes, although the infection be actually applied; because there is no susceptibility in such cases.

34. The *fortuitous susceptibility* renders us liable to many diseases; it is to be distinguished from the *extinguishable* and *inextinguishable* conditions, from the circumstance, that, the diseases which attack through the medium of this condition, do not arise from any specific causes, and, therefore, the same causes may produce different diseases, in different persons; or in the same person, under different circumstances. The most obvious of these are consumption, tabes, diabetes, rheumatism, gout, angina pectoris, croup, stone, asthma, hemorrhoids, miliary fever, common inflammatory fever, hypochondriasis, hysteria, visceral inflammation in general, typhus fever, scirrhus, cancer, tetanus, and rickets. The condition obviously includes all diseases that assail the human system, which are characterized by the sex or age of the patient; or by difference of climate. See 49, 51.

35. The *particular susceptibility*, happily for mankind, is not very predominant. It is a very distressing condition of life, requiring the most rigid adherence to temperance, to keep off disease. Sometimes, indeed, no precautions are sufficient to save from occasional attacks. But, by knowing the fact that, disease may generally be avoided, notwithstanding this kind of *susceptibility*; a very important truth is presented to view, and will, often, enable persons hereditarily susceptible, to escape this foe in ambush. Among the diseases to which we may be hereditarily subject, may be enumerated gout, asthma, scrofula, hypochondriasis, hysteria, dyspepsy, and yaws. It is obvious that this kind of *susceptibility* is called *particular*, because it is specially inherited. But it may grow out of the *fortuitous*, as in erysipelas, for instance, this disease assails us through a fortuitous medium, and from a fortuitous cause; but after it has been once excited, it often leaves a strong *particular susceptibility* which renders the patient very liable to repeated attacks, from various trivial causes. See 49.

#### *General Observations on Susceptibility.*

33. By a careful examination of the peculiarities of our bodies, which render us obnoxious to maladies, vastly numerous and diversified, we shall see that, the *susceptibility* or condition mentioned under the head of *extinguishable*, may be wholly destroyed; and, therefore, it becomes a matter of great importance to ascertain, under what circumstances we can suffer the operation of disease upon it, with least risk or suffering.

34. The small pox has been rendered so mild by inoculation as to be attended with little danger or dread. But wherewith shall posterity honor, or sufficiently appreciate, the discovery of Jenner;

his christian philosopher and physician has, in principle, destroyed this disease, for it is certain that by vaccination, which produces no serious disease, the susceptibility to the small pox may be wholly destroyed,

35. It may be remarked of the *extinguishable susceptibility*, considered as the medium through which other diseases (than small pox) operate upon the system, that, if they are not more mild in infancy, we have at least the certainty that, by subjecting children to them, under the most favorable circumstances, we thereby gain some control over the disease, and may prevent many unpleasant and dangerous consequences, which may befall them in riper years. For the traveller, soldier, seaman, &c. may, by unexpected attack, meet with delay, loss, or actual ruin; whereas, by subjecting our children to the causes of these diseases, we may, by a proper preparation and management, render those unavoidable diseases more mild. It, therefore, is not only justifiable, but a duty which we owe our children, to expose them to such causes, under proper circumstances. I am, however, of opinion that, the diseases under review, are not communicable from one body to another, although they evidently arise from specific causes. I am speaking of measles, hooping-cough, chicken pox, angina parotidæa, and the cow pox. It has been a prevalent opinion, long since, that measles are contagious; and persons have been inoculated, and took the disease; but why might not such persons have taken the disease from the same general cause? I hope to prove, when I come to treat of causes, the non-contagious nature of this disease; for the present, I wish merely to remark that, it mostly arises from a peculiar contamination of the atmosphere, and, further, that if contagious, we derive no advantage from the circumstance; for, no one has been able to prove that any advantage is obtained from the inoculation with measles; and, I believe, no attempts have been made to communicate the other exanthemata by inoculation. I shall speak more fully of this subject when I come to treat of specific causes.

36. By a suitable inquiry into the *inextinguishable susceptibility*, the medium through which a certain set of diseases assail us, having their origin from *specific causes*, we learn that, some of them are excited by miasmata; and the source of these are known to be vegetable and animal matters, particularly the former, in a state of decomposition (from heat and moisture acting upon them.) This applies to ague, bilious remitting fever, and yellow fever.\* Dysentery, angina maligna, goitre, influenza, scarlet

\*This opinion respecting yellow fever is still disputed, but, even those who believe in its contagious nature, consider a peculiar state of the atmosphere necessary for its production.

fever, hydrophobia,† and plague are more hidden in their sources. Of the first set it may be said; that, by knowing our liability and the topical nature of their causes, we may often avoid them, more especially as they only prevail during certain seasons of the year. Of the second set, we may observe, that, they differ from the first set in this, that the cause of goitre is probably perpetual, of influenza too general to be avoided; hydrophobia extremely rare and wholly hidden. Angina maligna, scarlet fever, and plague differ from bilious fevers in this, that their causes are occult, the latter rising up like the thief at night, deals out desolation and death, with gigantic weapons, but in inscrutable disguise.

37. I have observed, 34, when speaking of *fortuitous susceptibility*, that, this condition differs from those mentioned, 32 and 33, from the circumstance that, it is not assailable by *specific causes*. But from the long train of diseases which are enumerated in the par. on fortuitous susceptibility, we learn, that, we have much to apprehend from diseases, which, when once admitted, may seize on the whole, or a part of the system, and which are liable too, to change from one disease to another. Now, we may observe further, with respect to the condition under review, that it is in a much greater degree under our control, than those which act from *specific causes*. By temperance we may maintain a habit of body which renders us rather less liable to disease, from *specific causes*; and vastly more free from danger, or suffering, when they do attack us. But by temperance, proper exercise, and due regulation of habits generally, we may, in good measure, avoid diseases from *fortuitous causes* altogether; or if they do attack us, they are more mild. For, the condition under consideration does not admit *specific causes* to act upon us, but may bring us to suffer from many of the most common incidents of life, such as exposure to cold, wet, or changeable weather, fatigue, and intemperance; while, none of these can admit small pox, agues, &c. without the presence of a peculiar noxious something, of which, I shall speak more fully under the head of causes.

38. Although the *particular susceptibility* is not very common, yet, it is a matter of vast importance, that those who labor under this condition should have some knowledge of its existence, and of its extent. For by a knowledge of its existence, we are to learn by what means we are to escape suffering; and by a careful observance, of those means we may not only have a chance of escaping ourselves, but may, mostly, so far subdue this

†Hydrophobia has almost universally been considered as communicable by inoculation. I shall speak of this hereafter.

susceptibility as to avoid entailing it on our posterity. And by a knowledge of its extent, we know what diseases we may expect, and not torment ourselves with fears of hereditary susceptibility to diseases, to which mankind are only accidentally liable. In 35, I have observed that, we are hereditarily susceptible to gout, asthma, scrofula, hypochondriasis, hysteria, dyspepsy, and yaws;\* and, even some of these are very rarely admitted through this condition, but proceed from habits acquired.

39. In concluding the subject of susceptibility, we may remark, that, although there is a manifest line of distinction, generally speaking, between the different states or conditions of it, still, these conditions are sometimes obscure, and in some cases even blended. Thus, the *particular susceptibility* may be acquired, and through improper habits transmitted from parent to child, or the fortuitous susceptibility may admit diseases which never can be eradicated from the system, but become so fixed as to be transmitted. Lastly, every state or kind of susceptibility, is heightened or augmented by improper habits; so, that, in some cases, these conditions amount almost to disease. Diseases of every class, character, or kind, may either be warded off for a time, rendered more mild, or entirely obviated, by a sound state of body, so that, to sum up all, in the fewest possible words, susceptibility of every kind, by intemperance, irregularity, idleness, &c. may be augmented to a state closely bordering on disease; and ready to admit some noxious power, which may molest, or wholly destroy the throne of life, while, the good habit would lead the same noxious power through the various meanderings of the system, and then destroy the gorgon monster for lack of proper prey.

#### OF THE CAUSES OF DISEASES.

43. Before I deliver my own views of the causes of diseases, I shall premise with, a few observations upon the prevailing notions of the subject. And, from a careful examination, I am led to believe that, we have been accustomed to a loose, or indefinite kind of language, respecting those causes. An examination of this subject most unquestionably shows, the futility of the opinion of Rush, respecting the unity of disease: will teach us that, the mechanically methodic nosology of Cullen, with all its exalted merits, is essentially defective, from inattention to what so obviously renders diseases different, in different seasons, and in different places; that is, inattention to what has been called the

\*By the term yaws I mean a deplorable disease, which, we sometimes meet with, compounded of syphilis and scrofula.

*remote cause*, which, in my opinion, characterizes a large proportion of diseases. And, further, although we are bound by our experience to pay especial regard to the opinions of Sydenham, respecting the influence of different constitutions of the weather, still without the aid of nosology, our task would be vastly more tedious and difficult, in acquiring a medical education; and, indeed, few would ever reach mediocrity without some nosological guide. If I am right, then, in supposing that, each of those great fathers of medicine propagated errors, and that each of them promulgated many important truths, it will follow that to appreciate their opinions, it is necessary to collect from each one, that, which, seems most consonant to later experience, and to lay aside the errors, or extremes into which they have fallen. This is perhaps undertaking too much, but whatever may be the result of my labors, I feel satisfied that, further experience will prove, that, a large proportion of diseases arise from, and are characterized by, what has been called the *remote cause*. This opinion would lead us to the conclusion, that there is but one cause, this being the thing which excites disease and which, is almost as much diversified as are our diseases.

41. In prosecuting this subject, I shall next briefly notice the different causes which have been spoken of, by medical writers generally. The terms which have been used are pretty numerous, but, I believe, they are all referable to the following:

1. The antecedent, or predisposing cause.
2. The remote cause.
3. The occasional or exciting cause.
4. The proximate cause.

42. I shall now offer such observations on the causes of diseases as have been suggested to my mind, from a careful examination of the subject, and hope to establish thereby, that, our language has been indefinite, and will admit of correction or improvement. I have said when speaking of susceptibility, 32 and 33, that, a great proportion of our diseases arise from *specific causes*; and, it would seem that, these must always be in the character of excitants, and, therefore, what has been called the *remote*, I shall call the *exciting cause*.

43. The reader by turning to the chap. on susceptibility will find, that I hold, that what has been considered the predisposing cause, is nothing but a susceptibility of the system, and therefore, cannot be the cause of a disease, but the medium only, on which a thing, consisting of some noxious power, can impinge and excite disease. Having no occasion for the present, to speak further of the antecedent cause, which I suppose exists in imagination only, I am now to make a few observations on the *remote cause*.

44. In speaking of the remote cause, in the common acceptation, we may remark first; that miasm has been viewed as the remote cause of many diseases, particularly certain fevers, such as agues, &c. Now, it appears to me that, we might with equal propriety call the common fires in our houses, remote causes of burns upon the human body, as miasm the remote cause of fever. In both cases, avoid the thing and you remain unhurt, and the remoteness is just equal to the distance you recede from them, but to do you an injury, you must approach; when you come into contact with them they assail you with their noxious powers, and you are injured; but there is no intermediate state between their action and disease; and, therefore, they are excitants; or in other words, it is *exciting* causes alone that annoy us. For whenever an *exciting cause* impinges upon our bodies, we are disordered, and often at once much diseased, but who can conceive how any other but an active or exciting cause can produce disease. Where then the use of those loose notions about causes of disease? They are all exciting causes, but vastly diversified, as I shall endeavor to establish, when I come to a classification of them.

45. Of the *occasional cause* I have spoken, in the preceding par. and only wish to observe further, that, although I have declared, with respect to the *occasional* or *exciting cause*, that, it is the only one existent, according to the usual view of causes, still, what I have said as yet, respecting this cause, proves nothing but that our notions of causes have been indefinite, and the terms used wholly unnecessary: for when I say there is but one cause, and that an exciting one, it proves like Rush's notion of the unity of disease, nothing more than a general declaration, true, indeed, but without instruction. Thus, I say there is but one cause of disease, Rush says there is but one disease; no one can deny this, to wit, that a disease must have a cause, or that disease is a state different from health, but still we are none the wiser for all this; in the first case, we must search into the nature of this noxious power, called a cause, and we will find it a host; formed of many dissimilar parts or individuals, and each producing an effect pretty much characterized by its own peculiar nature. So, as respects the unity of disease; disease is a host of evil; but, formed of kinds mostly, as dissimilar as the causes which produce them.

46. It remains to say a few words respecting the *proximate cause*. It will no doubt occur to the reader that, most writers among the moderns have endeavored to comprehend a something, which, they call a proximate cause. This notion holds a conspicuous place in the writings of Rush and Cullen; and is the favorite hobby of Darwin; while, many deny the existence of such a thing altogether. It will be most agreeable to

my plan of arrangement to defer any particular remarks upon the opinions of the authors, just mentioned, till I come to treat of causes, according to my own views of this subject. I have, therefore, only further to observe that, the notion of a proximate cause in its common acceptation is not conceivable to my mind; but, I shall endeavor to give a fair but precise single illustration. We suppose a particle of variolous matter inserted into a person, susceptible of the disease, here, then, according to common phraseology, is a remote cause; now, where is the occasional cause? why, Rush says, "there is but one exciting cause,\* and, that, is stimulus." What stimulus? surely it will not be argued that cold, intemperance, &c. are necessary to produce small pox; and, therefore, it must still be the same noxious power impinging upon the system: and, I can perceive no intermediate agency; and believe the remote and exciting causes are truly the same. Our patient becomes diseased, wherefore? Because there was a state of susceptibility, and there was a power applied capable of annoying the system, in a manner peculiar to itself. Then, from these circumstances, and these alone, we have small pox. Now, with one cause, and one medium, we have a certain effect. I admit, a certain assemblage of signs are necessary to constitute the disease, in view; but all these are the result of one cause or agent, one medium or susceptibility; and one effect follows, a disease is excited, and maintained, through a routine marked out by laws peculiar to the things engaged in the process. To conclude, the cause of diseases viewed as to time, stage, or period, is to all the intents an unit, and an *ideal* unit *only*; but viewed as to quality, properties, or action, are exceedingly dissimilar in kind, and most of them having a kind of action peculiar to each.†

#### *A new arrangement of Causes.*

47. I enter upon this intricate subject with much diffidence, but so confident am I, that there is necessity for some examination of the subject, that, I have no hesitation in saying, if my attempt prove abortive, it will, nevertheless, appear hereafter that, there is room for improvement, in this very important branch of medical knowledge; and when some happy genius shall dispel the sable gloom which benights this subject, posterity, I hope, will do me justice in admitting, that I did not undertake to improve it without

\*See page 16, vol. III. Medical Inquiries and Observations.

†We have preferred leaving this paragraph as originally written, but we have been led to believe on further reflection that the term proximate cause may be made useful.



good reason, but should I be the happy instrument employed in the improvement of the subject, it will be a source of much satisfaction.

48. Before I proceed to treat of causes, I shall offer for consideration, the following postulata, for which the reader must be somewhat prepared, after the observations on susceptibility, in a former part of this essay.

Postulatum 1. In a pathological sense a *cause* is a physical power.

2. The human system is endowed with a susceptibility, which renders it obnoxious to disease.
3. Disease is the *result* of some physical power impinging upon a living susceptibility.
4. Susceptibility being a property of life, requires the coadjuvancy of matter, in order to produce action.

42. These postulata may require some illustration. I shall, therefore, briefly state my views of them. If a cause is a physical power capable of annoying the system through the intervention of a state of susceptibility, then it would seem that the disease must be characterized either by a specific cause, (being a physical power,) or by a peculiar state or kind of susceptibility. Then a specific cause must produce a specific disease, so that where we know that a peculiar thing has been acting upon the body, that if it produce disease at all, we can foretel the general character of such a disease. But if there is nothing peculiar in the cause, such as fatigue, vicissitudes of weather, and the like, then the cause may be said to be fortuitous, and the disease which may arise from such fortuitous cause, will not be characterized by the cause, but by the condition of susceptibility present. And, therefore, unless we know that a person labors under some peculiar susceptibility, we can have no guess what disease may follow from such fortuitous causes. Often, however, we are aware of a peculiar kind of susceptibility, and therefore we can foretel that asthma, rheumatism, and the like, will follow, because we know the person has that kind of susceptibility; by which such diseases are modded.

50. I have said, 48, post. 4, that susceptibility is a living principle, capable of acting through the instrumentality of matter as a coadjvant. Then we are to understand that, susceptibility is the result of an association of matter as a coadjvant, and life, as a sentient principle; so that I consider the vital principle as controlling all the operations of a living body, but subject to numberless combinations with matter, and there being a reciprocal influence, the action from these various combinations will be characterized in many cases by the physical coadjvant.

Therefore, when I say in 32, that there is an extinguishable susceptibility, I do not wish to be understood that, there is any diminution of the vital principle, but that it is changed in its relation to a physical coadjutant, without which there can be no organic life. If these ideas are correct, we may, with great propriety, say that, the human body as related to cause and disease, is a medium permeable by many noxious things, which may or may not produce disease; and it may not be amiss to repeat that, a disease, will always be characterized, either by a specific cause, or a specific condition of the system as a medium. I shall defer my definition of disease, till I come to treat of it under the condensed head of pathology. I wish, however to observe here that, *disorder* relates to matter, but disease, to a vital principle, by which the laws of animal bodies are governed.

51. In short, the human body, viewed in a pathological light, is a medium; such things as can actually assail this medium, and through it excite a disease, are *causes*, and there is no cognoscible stage between health and disease. For, no matter what air we breathe, or what causes we encounter, if from any peculiar circumstance we escape, there is in neither cause nor disease; for although the cause, in a corpuscular sense, is present, there is no susceptibility; but if some unfriendly power seizes on the body in a susceptible state, it is diseased, and the cause now ceases to act; for the cause and the effect cannot be the same thing.\* I care not what you call the *cause* of any disease; in the common sense of these words, they may be remote, exciting, or proximate, still there is but one cause and one medium, necessary for one disease, and with the exceptions which will be pointed out under the head of *fortuitous causes*, the disease will be shaped by its cause, and this exception only obliges us to acknowledge adjunct *causes*; all which will be explained hereafter.

52. The following view and arrangement of causes seems most satisfactory to my mind. All causes may be arranged into two classes. These are the *Specific* and the *Fortuitous*.

#### CLASS I.

#### OF SPECIFIC CAUSES.

53. The specific causes consist of the

- A. Animal effluvial,
- B. Marsh effluvial,
- C. Occult effluvial,

} Order.

\*If this were not the case, persons affected with yellow fever and other epidemics, could never recover in a situation where a contaminated state of the atmosphere continued.

54. The animal effluvial order A. consists of the  
 a. Diffused  
 b. Local. } Genus.
55. The diffused Genus a. consists of the  
 c. Variolous,  
 d. Typhodeous,  
 e. Varicellatous, } Species.
56. The local genus b. consists of the  
 f. Vaccinous,  
 g. Psoracous.  
 h. Syphiliticous,  
 i. Gonorrhœous, } Species.
57. The marsh effluvial order B. consists of the  
 j. Agueous,  
 k. Remittentous,  
 l. Grangrenous, } Species.
58. The occult effluvial order C. consists of the  
 m. Pestious.  
 n. Anginous,  
 o. Morbillous,  
 p. Influenzous,  
 q. Dysenterious,  
 r. Typhodeous,  
 s. Hydrophobious, } Species.
59. From the arrangement in the preceding page, we derive these terms, which apply to the causes of diseases.

*Table of the Specific Causes.*

- |     |                   |                     |                     |
|-----|-------------------|---------------------|---------------------|
| 60. | A. Variolous,     | } diffused a.       | } Animal effluvial. |
|     | B. Typhodeous,    |                     |                     |
|     | C. Varicellatous, |                     |                     |
| 64. | D. Vaccinous,     | } local b.          | } Animal effluvial. |
|     | E. Psoracous,     |                     |                     |
|     | F. Syphiliticous, |                     |                     |
|     | G. Gonorrhœous,   |                     |                     |
| 52. | H. Agueous,       | } Marsh effluvial.  | } Marsh effluvial.  |
|     | I. Remittentous,  |                     |                     |
|     | J. Grangrenous,   |                     |                     |
| 63. | K. Anginous,      | } Occult effluvial. | } Occult effluvial. |
|     | L. Morbillous,    |                     |                     |
|     | M. Influenzous,   |                     |                     |
|     | N. Dysenterious,  |                     |                     |
|     | O. Typhodeous,    |                     |                     |
|     | P. Hydrophobious. |                     |                     |

64. It is no objection to the foregoing classification of causes, that, they are sometimes blended, and sometimes adjunct. Nor have I been very solicitous to trace every disease, or every variety of causes, for, I hope, I have pointed out a plan of arrangement, which will enable every observer to place every disease or cause, according to his own views. Thus, for instance, I have placed hydrophobia among the occult effluvial causes; those who differ as to the nature of the cause of this disease, and suppose the disease is the consequence of an animal secretion, will only find it necessary to place it among the *local animal effluvial* causes; and then, they will have hydrophobious local animal effluvial, and so through the arrangement.\*

65. Should it be necessary to extend the classification, it will only be necessary to take a specific name, expressive of the disease, and then place it as arising from the occult, marsh, or animal effluvial, as our knowledge of its origin may direct.

66. Again, if we know that a disease has its origin from a specific cause, as yellow fever, for instance, and we are convinced that some fortuitous cause aided in the production of the disease, it is unphilosophical and palpably wrong, to say the fortuitous cause excited the disease; for fortuitous causes can produce to specific disease, how then excite one. The plain truth here is, that the specific cause produces a specific disease, but the fortuitous cause co-operates. And further, even the specific causes sometimes co-operate together, and so may the fortuitous, and, thereby, produce a disease, in some measure characterized by this union; hence it is that small sox, and some other diseases, are more virulent one season than at another. And it is highly probable, if not absolutely certain, that the animal and marsh effluvial causes sometimes combine, and produce a disease in some degree characterized by such union: we see this in camps, where we have dysenterious, and typhodeous, occult effluvial, and typhodeous diffused animal effluvial, the aqueous marsh effluvial, &c. sometimes tolerably distinct, and at other times wonderfully blended.

#### *Explanation of the Terms applied to the specific Causes of Diseases.*

67. For the terms alluded to, see from 53 to 63. The term specific cause has been so fully expatiated upon, that, I think it unnecessary to give any further explanation of it. This brings

\*We have in some degree changed our views of the nature of hydrophobia, but as it sometimes appears epidemically we have preferred being the remarks on this subject as originally written.

me first to give some explanation of the term animal effluvial: this term has been chosen from the circumstances, that whatever may be the primary source of certain diseases, they are extensible by excretions resulting from their operation on the human body. And these excretions are effluvia, which may be diffused through the atmosphere, or confined to the body, by which it was secreted; and, therefore, is in the first case, capable of traversing the airy space, and annoying us, spite of all precautions; but in the latter case, no injury can be done without actual contact, either by body to body, or by being attached to some sensible substance, and thence applied to the body.

68. From the ordoral term, animal effluvial, we have the generical name *diffused*, resulting from the circumstances mentioned in the preceding par. and of this diffusible property, we need only observe, that it is extensible by both the ways mentioned in the preceding par. that is, both by a diffusion in the atmosphere, and by actual contact of sensible bodies.

69. And from the same ordoral term, mentioned in the preceding paragraph, we derive the generical term *local*, from the circumstances, mentioned in 67; and we might have dismissed this term there, but for the necessity, which still remains, of tracing the generical term *local* into its different species; after we have dismissed the species belonging to the generical term *diffused*.

70. The first species of the *diffused*, in the list of causes, 58, is the variolous. Now *variola* being the term by which a well known disease has been designated, always proceeding from the same cause, and having a set of signs or symptoms peculiar to itself, serves distinctly and positively to designate the cause of small pox; hence by the specific term *variolous*, we express the cause in view. By the generical term *diffused*, we express a condition of variolous matter, by which it differs from some, but not all, of the causes designated by the ordoral term animal effluvial. It will follow then, according to this exposition, that each of the diseases arising from animal effluvial causes, is produced by distinct kinds of effluvia; but only a part of these effluvia have the capacity of extension through the air, and hence we get the generical term *diffused*. Another part of these effluvia are only communicable by actual contract of sensible substances.

71. Then it follows, that, the generical term *local* is derived from the circumstance, that the effluvia which produce certain diseases are topical and incapable of extension through the air, as a conductor. We may take the specific term *vaccinous*, as an example, and from the well known term *vaccina*, applied to the cow pox, we have *vaccinous*; a matter sui generis, and capable of producing its likeness by actual application to an abraded surface,

but wholly devoid of the power of extension, through the air as a conductor.

72. The reader who has examined a few of the preceding paragraphs, and the table of specific causes, will find no difficulty, I hope, in applying all the different terms adopted in my arrangement of causes. A well known disease always furnishes a specific name; some very striking condition of such morbid matter, as to its properties or sources, furnishes a generical term, as has already been explained, in this section, as far as necessary till I come to speak of causes individually, as they may occasionally present themselves in future lectures.

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#### WASHINGTON MEDICAL COLLEGE.

We trust the completion of our second volume, will obtain the approbation of our friends to the assurance which we have given, and now repeat, that this Journal was not gotten up for party purposes, for the dissemination of particular doctrines, nor for collegiate purposes, except so far as an impartial diffusion of medical knowledge, may indirectly subserve all colleges, and all individuals.

While we express our thanks to our patrons, we must acknowledge that we have been but poorly sustained, by a large portion of the profession at home, who look with something more than distrust, upon every thing coming from a competitor in business, while they willingly contribute to that which comes from abroad—we have only to say on this point, that we have faithfully, and we trust, not unprofitably, (to those whose eyes are not prejudiced,) labored to collect in this city, and distribute without affection or favor, or prejudice, every thing which came before us.

No one can charge us with any undue effort in giving publicity to the proceedings of Washington College, over any other—our work has always been open to all—but in closing the present volume, we have pleasure in assuring our several friends, who inquire after the prospects of this college, that it is in a favorable state of progression—The names of twenty-one candidates are now on the list, for the approaching examination, many of whom complete their third course of lectures with us, this term.

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